

## Final Report

# Environmental Assessment: Demolish 452 at Grand Forks Air Force Base

Prepared by  
**Grand Forks Air Force Base, North Dakota**  
319 CES/CEVA  
525 Tuskegee Airmen Blvd  
Grand Forks AFB ND 58205-6434

December 2005



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## **FINDING OF NO SIGNIFICANT IMPACT FOR DEMOLITION OF 452**

AGENCY: Department of the Air Force

PROPOSED ACTION: The United States Air Force (USAF) proposes to demolish building 452 on Grand Forks Air Force Base (AFB), North Dakota.

**Purpose and Need:** The purpose of the proposed action is to demolish 1800 square feet of excess facility space in building 452, previously known as the SABER office, in-house by CES in FY 06. Work includes asbestos and lead based paint removal abatement/removal, building demolition, excavation, slab removal, backfill, grading, removal of debris, and site restoration. The Grand Forks AFB Facility Board approved relocation of the SABER office on 23 Mar 05, and demolition of 452 is proposed as a CES in-house project.

The SABER office has been relocated to building 412, so there is no longer any need for this facility at Grand Forks AFB. The building was constructed in 1977 as an office building. It is a 30' x 60' metal building with concrete floor. The facility identified for demolition has been classified substandard, and repair to this facility would exceed 70% of the replacement value. The facility has been plagued with safety and health concerns of mold, fungus and high humidity caused by problematic under-floor heat ducting. The windows, roof and exterior fail to meet Air Force architectural standards. This project supports facility consolidation and reduction initiatives.

Related demolition EIAP (EA) documents are RCS # 03-082 Demo of Heat Plant; 02-060 Demo of Penn Circle Housing; 02-037 Demo of LMR; and 02-036 Demo of Bldg 800. Related CATEX actions for building 452 include 04-322 A2.3.11 Remove tank, screen, and concrete pad on west side of the building; and 2001-130 A2.3.12 Repair HVAC.

Grand Forks Air Force Base must decide whether to demolish building 452 in-house by CES on Grand Forks AFB.

### **ALTERNATIVES CONSIDERED**

**No Action Alternative 1:** The no action alternative would be to leave the facility as it is. The facility is old and deteriorated and will remain vacant. The base will be forced to expend maintenance funds to maintain this facility to ensure this facility minimally impacts the quality of life. The facility detracts from the community atmosphere and degrades the appearance of this base. The facility would continue to have safety and health concerns of mold, fungus and high humidity caused by problematic under-floor heat ducting. The windows, roof and exterior would continue to fail to meet Air Force architectural standards.

**Proposed Action 2:** Demolish building 452, an 1800 square feet excess facility, on base by CES in-house in FY 06. Work includes asbestos and lead based paint removal abatement/removal,

building demolition, excavation, slab removal, backfill, grading, removal of debris, and site restoration.

Alternative Action 3: Demolish facility 452 by contract as part of the BCE project JFSD990073 in FY 13. Work includes asbestos and lead based paint removal abatement/removal, building demolition, excavation, slab removal, backfill, grading, removal of debris, and site restoration.

## ENVIRONMENTAL CONSEQUENCES

Air Quality - Air Quality is considered good and the area is in attainment for all criteria pollutants. No significant impacts to air quality would result because of demolition activities.

Noise - The demolition of building 452 would create additional noise. The increase in noise would be negligible and only occur during demolition.

Wastes, Hazardous Materials, and Stored Fuels - The increase in hazardous and solid wastes from 452 demolition would be temporary. Solid waste debris would be disposed of in an approved location, such as the Grand Forks Municipal Landfill. Inert demolition debris would be disposal at an approved location, such as Berger Landfill.

Water Resources – Provided best management practices (BMPs) are followed, there would be minimal impacts on stormwater, ground water and water quality. The proposed action would have no impact on wastewater.

Biological Resources – BMPs and control measures, including storm drain covers and covering of stockpiles, would be implemented to ensure that impacts to biological resources be kept to a minimum. BMPs would be required to prevent the spread of noxious weeds, minimize soil erosion, and promote the establishment of native plant species.

Socioeconomic Resources - This action would have a minor positive effect on the local economy. Secondary retail purchases would make an additional contribution to the local communities. The implementation of the proposed action, therefore, would provide a short-term, beneficial impact to local retailers during the demolition phase of the project.

Cultural Resources - The proposed action has little potential to impact cultural resources. In the unlikely event any such artifacts were discovered during the demolition, the operator or contractor would be instructed to halt operations and immediately notify Grand Forks AFB civil engineers who would notify the State Historic Preservation Officer.

Land Use - The proposed operation would not have an impact on land use, since the area is designated for industrial use.

Transportation Systems – The proposed operation would have minor adverse impact to transportation systems on base due to vehicles traveling to and from 452.

Airspace/Airfield Operations - The proposed action would not impact aircraft safety or airspace compatibility.

Safety and Occupational Health – Participants in the demolition must wear appropriate personnel protective equipment (PPE).

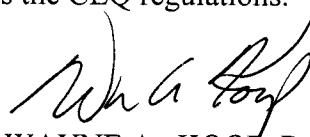
Environmental Management – The proposed action would not impact ERP Sites. BMPs would be implemented to prevent erosion.

Environmental Justice - EO 12898 requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. There is no minority or low-income populations in the area of the proposed action or alternatives, and, thus, there would be no disproportionately high or adverse impact on such populations.

A copy of the EA was available at the Grand Forks AFB Public Affairs office. All interested agencies and persons were invited to submit written comments within thirty days from the public notice. The public notice appeared in the Grand Forks AFB Leader on November 18 and the Grand Forks Herald on November 22 and 24. Comments were received from the North Dakota Department of Health, U.S. Fish and Wildlife Service, N.D. Game and Fish, and N.D. State Historical Society. None of the comments required changes to the proposed action or the discussion of environmental consequences in the EA.

No adverse environmental impact to any of the areas identified by the AF Form 813 is expected by the proposed action, demolition of 452.

**CONCLUSION:** Based on the Environmental Assessment performed for Demolition of 452, no significant environmental impact is anticipated from the proposed action. Based upon this finding, an Environmental Impact Statement is not required for this action. This document and the supporting AF Form 813 fulfill the requirements of the National Environmental Policy Act (NEPA), the Council of Environmental Quality (CEQ) regulations implementing NEPA, and Air Force Instruction 32-7061, which implements the CEQ regulations.



WAYNE A. KOOP, R.E.M., GM-13  
Environmental Management Flight Chief

Date: 3 JAN 06

## Cover Sheet

Agency: United States Air Force (USAF)

Action: The action proposes to demolish building 452 at Grand Forks Air Force Base (AFB), North Dakota.

Contacts: 319 CES/CEVA  
525 Tuskegee Airmen Boulevard (Blvd)  
Grand Forks AFB, ND 58205

Designation: Final Environmental Assessment (EA)

Abstract: This draft EA has been prepared in accordance with the National Environmental Policy Act, and assesses the potential environmental impacts to demolish building 452, located in Grand Forks County, North Dakota. Resource areas analyzed in the EA include Air Quality; Noise; Wastes, Hazardous Materials, and Stored Fuels; Water Resources; Biological Resources; Socioeconomic Resources; Cultural Resources; Land Use; Transportation Systems; Airspace/Airfield Operations; Safety and Occupational Health; Environmental Management; and Environmental Justice.

In addition to the Proposed Action, the Alternative Action and the No Action Alternative were analyzed in the EA. The EA also addresses the potential cumulative effects of the associated activities along with other concurrent actions at Grand Forks AFB and the surrounding area.

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## ACRONYMS, ABBREVIATIONS, AND TERMS

|        |   |
|--------|---|
| AAM    | Annual Arithmetic Mean  |
| ACM    | Asbestos Containing Material  |
| AFB    | Air Force Base  |
| AFI    | Air Force Instruction   |
| AICUZ  | Air Installation Compatible Use Zone                                  |
| AMC    | Air Mobility Command  |
| APZ    | Accident Potential Zone   |
| ARPA   | Archeological Resource Protection Act                                 |
| ARW    | Air Refueling Wing  |
| AST    | Above Ground Storage Tank   |
| Ave    | Avenue  |
| BASH   | Bird Aircraft Strike Hazard   |
| Blvd   | Boulevard   |
| BMP    | Best Management Practice  |
| BMX    | Bike Motocross  |
| BOD    | Biochemical Oxygen Demand   |
| CAA    | Clean Air Act   |
| CWA    | Clean Water Act   |
| CEQ    | Council on Environmental Quality                                      |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CES    | Civil Engineering Squadron  |
| CFR    | Code of Federal Regulations   |
| CO     | Carbon Monoxide   |
| dB     | decibel   |
| DBa    | Decibel   |
| DNL    | Day-Night Average A-Weighted Sound Level                              |
| EA     | Environmental Assessment  |
| EIAP   | Environmental Impact Analysis Process                                 |
| EIS    | Environmental Impact Statement  |
| EO     | Executive Order   |
| EPA    | Environmental Protection Agency                                       |
| EPCRA  | Emergency Planning and Community Right-to-Know Act                    |
| ERP    | Environmental Restoration Program                                     |
| ESA    | Endangered Species Act  |
| F      | Fahrenheit  |
| FEMA   | Federal Emergency Management Agency                                   |
| FONPA  | Finding of No Practicable Alternative                                 |
| FONSI  | Finding of No Significant Impact                                      |
| ft     | Feet  |

|                    |  |
|--------------------|--|
| ft <sup>3</sup> /s | feet cubed per meter                                     |
| GFAFB              | Grand Forks Air Force Base                               |
| HAP                | Hazardous Air Pollutants                                 |
| hr                 | Hour   |
| H <sub>2</sub> S   | Hydrogen Sulfide   |
| IAW                | in accordance with                                       |
| IRP                | Installation Restoration Program                         |
| LT                 | Long-Term  |
| MBTA               | Migratory Bird Treaty Act                                |
| MFH                | Military Family Housing                                  |
| mph                | Miles Per Hour   |
| MSDS               | Material Safety Data Sheet                               |
| MSL                | Mean Sea Level   |
| µg/m <sup>3</sup>  | Micrograms Per Meter Cubed                               |
| NAAQS              | National Ambient Air Quality Standards                   |
| NAGPRA             | Native American Graves Protection and Repatriation Act   |
| ND                 | North Dakota   |
| NDAAQS             | North Dakota National Ambient Air Quality Standards      |
| NDAC               | North Dakota Administrative Code                         |
| NDDH               | North Dakota Department of Health                        |
| NDPDES             | North Dakota Pollutant Discharge Elimination System      |
| NEPA               | National Environmental Policy Act                        |
| NESHAP             | National Emission Standards for Hazardous Air Pollutants |
| NFPA               | National Fire Protection Act                             |
| NHPA               | National Historic Preservation Act                       |
| NO <sub>x</sub>    | Nitrogen Oxides  |
| NO <sub>2</sub>    | Nitrogen Dioxide   |
| NPDES              | National Pollutant Discharge Elimination System          |
| NPL                | National Priorities List                                 |
| NRHP               | National Register of Historic Places                     |
| NWR                | National Wildlife Refuge                                 |
| O <sub>3</sub>     | Ozone  |
| OSHA               | Occupational Safety and Health Act                       |
| OWS                | Oil Water Separator                                      |
| P2                 | Pollution Prevention                                     |
| Pb                 | Lead   |
| PCS                | Petroleum-Contaminated Soil                              |
| PM <sub>10</sub>   | Particulate Matter 10 Microns in Diameter                |
| PM <sub>2.5</sub>  | Particulate Matter 25 Microns in Diameter                |

|                 |  |
|-----------------|--|
| POL             | Petroleum Oil Lubricant                        |
| ppm             | Parts Per Million                              |
| PSD             | Prevention of Significant Deterioration        |
| QA/QC           | Quality Assessment and Quality Control         |
| RACM            | Regulated Asbestos Containing Materials        |
| RCRA            | Resource Conservation and Recovery Act         |
| RI/FS           | Remedial Investigation/Feasibility Study       |
| RV              | Recreational Vehicle                           |
| SAGE            | Strategic Air Ground Equipment                 |
| SAIC            | Science Applications International Corporation |
| SARA            | Superfund Amendments and Reauthorization Act   |
| SO <sub>2</sub> | Sulfur Dioxide                                 |
| SO <sub>x</sub> | Sulfur Dioxide                                 |
| St              | Street   |
| ST              | Short-Term                                     |
| SWMU            | Solid Waste Management Unit                    |
| tpy             | Tons Per Year                                  |
| TSCA            | Toxic Substance Control Act                    |
| TSI             | Thermal System Insulation                      |
| US              | United States                                  |
| USACE           | United States Army Corps of Engineers          |
| USAF            | United States Air Force                        |
| U.S.C.          | United States Code                             |
| USEPA           | United States Environmental Protection Agency  |
| UST             | Underground Storage Tank                       |
| VOC             | Volatile Organic Compound                      |

## EXECUTIVE SUMMARY

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Airspace/Airfield Operations - The proposed action would not impact aircraft safety or airspace compatibility.

Safety and Occupational Health – Participants in the demolition must wear appropriate personnel protective equipment (PPE).

Environmental Management – The proposed action would not impact ERP Sites. BMPs would be implemented to prevent erosion.

Environmental Justice - EO 12898 requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. There is no minority or low-income populations in the area of the proposed action or alternatives, and, thus, there would be no disproportionately high or adverse impact on such populations.

## **1.0 PURPOSE OF AND NEED FOR PROPOSED ACTION**

This Environmental Assessment (EA) examines the potential for impacts to the environment resulting from demolition of building 452 on Grand Forks Air Force Base (AFB). As required by the National Environmental Policy Act (NEPA) of 1969, federal agencies must consider environmental consequences in their decision making process. The EA provides analysis of the potential environmental impacts from both the proposed action and its alternatives.

### **1.1 INTRODUCTION**

Located in northeastern North Dakota (ND), Grand Forks AFB is the first core refueling wing in Air Mobility Command (AMC) and home to 48 KC-135R Stratotanker aircraft. The host organization at Grand Forks AFB is the 319th Air Refueling Wing (ARW). Its mission is to guarantee global reach, by extending range in the air, supplying people and cargo where and when they are needed and provides air refueling and airlift capability support to United States Air Force (USAF) operations anywhere in the world, at any time. Organizational structure of the 319th ARW consists primarily of an operations group, maintenance group, mission support group, and medical group.

The location of the proposed action (and the alternative actions) would be at Grand Forks AFB, ND. Grand Forks AFB covers approximately 5,420 acres of government-owned land and is located in northeastern ND, about 14 miles west of Grand Forks, along United States (US) Highway 2. Grand Forks (population 49,321) is the third largest city in ND. Appendix A includes a Location Map. The city, and surrounding area, is a regional center for agriculture, education, and government. It is located approximately 160 miles south of Winnipeg, Manitoba, and 315 miles northwest of Minneapolis, Minnesota. The total base population, as of May 2004, is approximately 7,261. Of that, 2,928 are military, 3,953 are military dependents, and 380 civilians working on base (Grand Forks AFB, 2004).

### **1.2 NEED FOR THE ACTION**

The purpose of the proposed action is demolition of 452. The SABER office has been relocated to building 412, so there is no longer any need for this facility at Grand Forks AFB. The building was constructed in 1977 as an office building. It is a 30' x 60' metal building with concrete floor. Facility identified for demolition has been classified substandard, and repair to this facility would exceed 70% of the replacement value. The facility has been plagued with safety and health concerns of mold, fungus and high humidity caused by problematic under-floor heat ducting. The windows, roof and exterior fail to meet Air Force architectural standards.

### **1.3 OBJECTIVES FOR THE ACTION**

Demolition would reduce 1800 square feet of office space on Grand Forks AFB. This project supports facility consolidation and reduction initiatives.

### **1.4 SCOPE OF EA**

This EA identifies, describes, and evaluates the potential environmental impacts associated with demolition of building 452 on Grand Forks AFB. This analysis covers only those items listed above. It does not include any previous construction or demolition of facilities, parking lots, associated water drainage structures, or other non-related construction and demolition activities.

The following must be considered under the NEPA, Section 102(E).

- Air Quality
- Noise
- Wastes, Hazardous Materials, and Stored Fuels
- Water Resources
- Biological Resources
- Socioeconomic Resources
- Cultural Resources
- Land Use
- Transportation Systems
- Airspace/Airfield Operations
- Safety and Occupation Health
- Environmental Management
- Environmental Justice

## 1.5 DECISION(S) THAT MUST BE MADE

This EA evaluates the environmental consequences from implementing demolition of building 452 on Grand Forks AFB. NEPA requires that environmental impacts be considered prior to final decision on a proposed project. The Environmental Management Flight Chief will determine if a Finding of No Significant Impact can be signed or if an Environmental Impact Statement (EIS) must be prepared. Preparation of an environmental analysis must be accomplished prior to a final decision regarding the proposed project and must be available to inform decision makers of potential environmental impacts of selecting the proposed action or any of the alternatives.

## 1.6 APPLICABLE REGULATORY REQUIREMENTS AND REQUIRED COORDINATION

These regulations require federal agencies to analyze potential environmental impacts of proposed actions and alternatives and to use these analyses in making decisions on a proposed action. All cumulative effects and irretrievable commitment of resources must also be assessed during this process. The Council on Environmental Quality (CEQ) regulations declares that an EA is required to accomplish the following objectives:

- Briefly provide sufficient evidence and analysis for determining whether to prepare an EIS or a Finding of No Significant Impact (FONSI).
- Aid in an agency's compliance with NEPA when an EIS is not necessary, and facilitate preparation of an EIS when necessary.

Air Force Instruction (AFI) 32-7061 as promulgated in 32 Code of Federal Regulations (CFR) 989, specifies the procedural requirements for the implementation of NEPA and the preparation of an EA. Other environmental regulatory requirements relevant to the proposed action and alternatives are also in this EA. Regulatory requirements including, but not restricted to the following programs will be assessed:

- AF Environmental Impact Analysis Process (EIAP) (32 CFR 989)
- AFI 32-7020, Environmental Restoration Program
- AFI 32-7040, Air Quality Compliance
- AFI 32-7041, Water Quality Compliance
- AFI 32-7042, Solid and Hazardous Waste Compliance
- AFI 32-7063, Air Installation Compatible Use Zone (AICUZ) Program
- AFI 32-7064, Integrated Natural Resource Management
- Archaeological Resources Protection Act (ARPA) [16 U.S.C. Sec 470a-11, et seq., as amended]
- Clean Air Act (CAA) [42 U.S.C. Sec 7401, et seq., as amended]
- Clean Water Act (CWA) [33 U.S.C. Sec 400, et seq.]
- CWA [33 U.S.C. Sec 1251, et seq., as amended]
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) [42 U.S.C. Sec. 9601, et seq.]
- Defense Environmental Restoration Program [10 U.S.C. Sec. 2701, et seq.]
- Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 [42 U.S.C. Sec. 11001, et seq.]
- Endangered Species Act (ESA) [16 U.S.C. Sec 1531-1543, et seq.]
- Executive Order (EO) 11514, Protection and Enhancement of Environmental Quality as Amended by EO 11991
- EO 11988, Floodplain Management
- EO 11990, Protection of Wetlands
- EO 12372, Intergovernmental Review of Federal Programs
- EO 12898, Environmental Justice
- EO 12989 Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations
- EO 13045, Protection of Children from Environmental Health Risks and Safety Risks
- Hazardous Materials Transportation Act of 1975 [49 U.S.C. Sec 1761, et seq.]
- NEPA of 1969 [42 U.S.C. Sec 4321, et seq.]
- National Historic Preservation Act (NHPA) of 1966 [16 U.S.C. Sec 470, et seq., as amended]
- The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 [Public Law 101-601, 25 U.S.C. Sec. 3001-3013, et seq.]
- Noise Control Act of 1972 [42 U.S.C. Sec. 4901, et seq., Public Law 92-574]
- ND Air Pollution Control Act (Title 23) and Regulations

- ND Air Quality Standards (Title 33)
- ND Hazardous Air Pollutants Emission Standards (Title 33)
- Occupational Safety and Health Act (OSHA) of 1970 [29 U.S.C. Sec. 651, et seq.]
- Resource Conservation and Recovery Act (RCRA) of 1976 [42 U.S.C. Sec. 6901, et seq.]
- Toxic Substances Control Act (TSCA) of 1976 [15 U.S.C. Sec. 2601, et seq.]

Grand Forks AFB has a National Pollutant Discharge Elimination System (NPDES) permit for both waste water and storm water to cover base-wide industrial activities. Implementation of the proposed action or an alternative action would disturb less than one acre, and thus negate the need for Grand Forks AFB to obtain a separate NPDES Construction permit from the North Dakota Department of Health (NDDH). Our general small site permit will cover this activity and needs to be tracked by the construction agent IAW the appropriate rules. The permit would allow discharge of storm water runoff until the site is stabilized by the reestablishment of vegetation or other permanent cover.

Scoping for this EA included discussion of relevant issues with members of the environmental management and bioenvironmental flights. Scoping letters requesting comments on possible issues of concern are sent to agencies with pertinent resource responsibilities. In accordance with 32 CFR 989, a copy of the final EA is submitted to the ND Division of Community Services.

Applicable regulatory requirements and required coordination include a Work Clearance Request, Stormwater Protection Plan, Dust Control Plan, Spill Control Plan, and Erosion and Sediment Control Plan.

## **2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES**

### **2.1 INTRODUCTION**

Based on the descriptions of the relevant environmental resources presented in Section 3 and the predictions and analyses presented in Section 4, this section presents a comparative summary matrix of the alternatives (the heart of the analysis), providing the decision maker and the public with a clear basis for choice among the alternatives.

This section has five parts:

- Selection Criteria for Alternatives
- Alternatives Considered but Eliminated from Detailed Study
- Detailed Descriptions of the Three Alternatives Considered
- Comparison of Environmental Effects of the Proposed Action and Alternatives
- Identification of the Preferred Alternative

### **2.2 SELECTION CRITERIA FOR ALTERNATIVES**

Selection criteria used to evaluate the Proposed and Alternative Actions include the following:

A cost effective method to dispose of an excess facility at Grand Forks AFB.

Minimum mission requirements include efficiency, effectiveness, legality, and safety to meet AF requirements.

Minimum environmental standards include OSHA, AFOSH, NFPA, AFI, CFR, EPA and North Dakota standards for noise, air, water, safety, HW, vegetation, cultural, geology, soils, and socioeconomic.

### **2.3 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY**

One alternative considered was to retrofit, remodel and reutilize building 452 for use by another activity on base. Cost to renovate is unknown but potentially high, due to the asbestos-containing-materials and lead base paint used in the building. There is also the cost of mold and fungus elimination caused by the high humidity of the under-floor heating duct system.

### **2.4 DESCRIPTION OF PROPOSED ALTERNATIVES**

This section describes the activities that would occur under three alternatives: the no action alternative, the proposed action, and action alternative. These three alternatives provide the decision maker with a reasonable range of alternatives from which to choose.

#### **2.4.1 Alternative 1 (No Action Alternative): Status Quo**

The no action alternative would be to leave the facility as it is. The facility is old and deteriorated and will remain vacant. The base will be forced to expend maintenance funds to maintain this facility to ensure this facility minimally impacts the quality of life. The facility detracts from the community atmosphere and degrades the appearance of this base. The facility

would continue to have safety and health concerns of mold, fungus and high humidity caused by problematic under-floor heat ducting. The windows, roof and exterior would continue to fail to meet Air Force architectural standards.

2.4.2 Alternative 2 (Proposed Action): Demolish building 452, 1800 square feet of excess facility space on base, by CES in-house in FY 06. Work includes asbestos and lead based paint removal abatement/removal, building demolition, excavation, slab removal, backfill, grading, removal of debris, and site restoration.

2.4.3 Alternative 3: Demolish facility 452 by contract as part of the BCE project JFSD990073, programmed for FY 13.

## 2.5 DESCRIPTION OF PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE ACTIONS RELEVANT TO CUMULATIVE IMPACTS

Impacts from the Proposed Action would be concurrent with other actions occurring at Grand Forks AFB. There are several other construction and demolition projects occurring on Grand Forks AFB in the same time frame. These projects are addressed under separate NEPA documents. Related demolition EIAP (EA) documents for demolition are RCS # 03-082 Demo of Heat Plant; 02-060 Demo of Penn Circle Housing; 02-037 Demo of LMR; and 02-036 Demo of Bldg 800. CATEX actions for building 452 include 04-322 A2.3.11 Remove tank, screen, and concrete pad on west side of the building; and 2001-130 A2.3.12 Repair HVAC.

## 2.6 SUMMARY COMPARISON OF THE EFFECTS OF ALL ALTERNATIVES

Potential impacts from implementing the No Action Alternative, the Proposed Action, and Alternative are discussed in detail in Chapter 4.

Table 2.6.1: Summary of Environmental Impacts

|   | No Action<br>Alternative 1 | Proposed Action 2       | Alternative 3           |  |
|---|----------------------------|-------------------------|-------------------------|--|
| Legend: ST = short-term; LT = long-term       |                            |                         |                         |  |
| Air Quality                                   | None                       | Minor Adverse ST Impact | Minor Adverse ST Impact |  |
| Noise   | None                       | Minor Adverse ST Impact | Minor Adverse ST Impact |  |
| Wastes, Hazardous Materials, and Stored Fuels | None                       | Adverse ST Impact       | Adverse ST Impact       |  |
| Water Resources                               |                            |                         |                         |  |
| Ground Water                                  | None                       | None                    | None                    |  |
| Surface Water                                 | None                       | Minor Adverse ST Impact | Minor Adverse ST Impact |  |
| Wastewater                                    | None                       | None                    | None                    |  |
| Water Quality                                 | None                       | None                    | None                    |  |
| Wetlands                                      | None                       | None                    | None                    |  |
| Biological Resources                          |                            |                         |                         |  |
| Vegetation                                    | None                       | Minor Adverse ST Impact | Minor Adverse ST Impact |  |
| Noxious Weeds                                 | None                       | Minor Adverse ST Impact | Minor Adverse ST Impact |  |
| Wildlife                                      | None                       | Minor Adverse ST Impact | Minor Adverse ST Impact |  |
| Threatened and Endangered Species             | None                       | Minor Adverse ST Impact | Minor Adverse ST Impact |  |
| Socioeconomic Resources                       | None                       | Beneficial ST Impact    | Beneficial ST Impact    |  |
| Cultural Resources                            | None                       | None                    | None                    |  |
| Land Use                                      | None                       | None                    | None                    |  |
| Transportation Systems                        | None                       | Minor Adverse ST Impact | Minor Adverse ST Impact |  |
| Airspace/Airfield Operations                  |                            |                         |                         |  |
| Aircraft Safety                               | None                       | None                    | None                    |  |
| Airspace Compatibility                        | None                       | None                    | None                    |  |
| Safety and Occupational Health                | None                       | Minor Adverse ST Impact | Minor Adverse ST Impact |  |
| Environmental Management                      |                            |                         |                         |  |
| Installation Restoration Program              | None                       | None                    | None                    |  |
| Geological Resources                          | None                       | None                    | None                    |  |
| Pesticide Management                          | None                       | None                    | None                    |  |
| Environmental Justice                         | None                       | None                    | None                    |  |

## 2.7 IDENTIFICATION OF PREFERRED ALTERNATIVE

Grand Forks AFB will demolish excess facility 452 on base by CES in-house. Work includes asbestos and lead based paint removal abatement/removal, building demolition, excavation, slab removal, backfill, grading, removal of debris, and site restoration.

## **3.0 AFFECTED ENVIRONMENT**

### **3.1 INTRODUCTION**

This section succinctly describes the operational concerns and the environmental resources relevant to the decision that must be made concerning this proposed action. Environmental concerns and issues relevant to the decision to be made and the attributes of the potentially affected environment are studied in greater detail in this section. This descriptive section, combined with the definitions of the alternatives in Section 2, and their predicted effects in Section 4, establish the scientific baseline against which the decision-maker and the public can compare and evaluate the activities and effects of all the alternatives.

### **3.2 AIR QUALITY**

Grand Forks AFB has a humid continental climate that is characterized by frequent and drastic weather changes. The summers are short and humid with frequent thunderstorms. Winters are long and severe with almost continuous snow cover. The spring and fall seasons are generally short transition periods. The average annual temperature is 40°Farenheit (F) and the monthly mean temperature varies from 6°F in January to 70°F in July. Mean annual precipitation is 19.5 inches. Rainfall is generally well distributed throughout the year, with summer being the wettest season and winter the driest. An average of 34 thunderstorm days per year is recorded, with some of these storms being severe and accompanied by hail and tornadoes. Mean annual snowfall recorded is 40 inches with the mean monthly snowfall ranging from 1.6 inches in October to 8.0 inches in March. Relative humidity averages 58 percent annually, with highest humidity being recorded in the early morning. The average humidity at dawn is 76 percent. Mean cloud cover is 48 percent in the summer and 56 percent in the winter (USAF, 2003).

Table 3.2-1: Climate Data for Grand Forks AFB, ND

| Month     | Mean Temperature (°F)<br>Daily |         |         | Precipitation (Inches)<br>Monthly |         |         |
|-----------|--------------------------------|---------|---------|-----------------------------------|---------|---------|
|           | Maximum                        | Minimum | Monthly | Mean                              | Maximum | Minimum |
| January   | 15                             | -1      | 6       | 0.7                               | 2.4     | 0.1     |
| February  | 21                             | 5       | 13      | 0.5                               | 3.2     | 0.0     |
| March     | 34                             | 18      | 26      | 1.0                               | 2.9     | 0.0     |
| April     | 53                             | 32      | 41      | 1.5                               | 4.0     | 0.0     |
| May       | 69                             | 47      | 56      | 2.5                               | 7.8     | 0.5     |
| June      | 77                             | 56      | 66      | 3.0                               | 8.1     | 0.8     |
| July      | 81                             | 61      | 70      | 2.7                               | 8.1     | 0.5     |
| August    | 80                             | 59      | 67      | 2.6                               | 5.5     | 0.1     |
| September | 70                             | 49      | 57      | 2.3                               | 6.2     | 0.3     |
| October   | 56                             | 37      | 44      | 1.4                               | 5.7     | 0.1     |
| November  | 34                             | 20      | 26      | 0.7                               | 3.3     | 0.0     |
| December  | 20                             | 6       | 12      | 0.6                               | 1.4     | 0.0     |

Source: AFCCC/DOO, October 1998

Wind speed averages 10 miles per hour (mph). A maximum wind speed of 74 mph has been recorded. Wind direction is generally from the northwest during the late fall, winter, and spring, and from the southeast during the summer.

Grand Forks County is included in the ND Air Quality Control Region. This region is in attainment status for all criteria pollutants. In 1997, the ND Department of Health (NDDH) conducted an Air Quality Monitoring Survey that indicated that the quality of ambient air in ND is generally good as it is located in an attainment area (NDDH, 1998). Grand Forks AFB has the following air permits: T5-F78004 (permit to operate) issued by NDDH and a CAA Title V air emissions permit.

The United States Environmental Protection Agency (USEPA) established the National Ambient Air Quality Standards (NAAQS), which define the maximum allowable concentrations of pollutants that may be reached, but not exceeded within a given time period. The NAAQS regulates the following criteria pollutants: Ozone ( $O_3$ ), carbon monoxide (CO), nitrogen dioxide ( $NO_2$ ), sulfur dioxide ( $SO_2$ ), lead (Pb), and particulate matter. The ND Ambient Air Quality Standards (NDAAQS) were set by the State of ND. These standards are more stringent and emissions for operations in ND must comply with the Federal or State standard that is the most restrictive. There is also a standard for hydrogen sulfide ( $H_2S$ ) in ND.

Prevention of significant deterioration (PSD) regulations establishes  $SO_2$ , particulate matter 10 microns in diameter ( $PM_{10}$ ), and  $NO_2$  that can be emitted above a premeasured amount in each of three class areas. Grand Forks AFB is located in a PSD Class II area where moderate, well-controlled industrial growth could be permitted. Class I areas are pristine areas and include national parks and wilderness areas. Significant increases in emissions from stationary sources (100 tons per year (tpy) of CO, 40 tpy of nitrogen oxides ( $NO_x$ ), volatile organic compounds (VOCs), or sulfur oxides ( $SO_x$ ), or 15 tpy of  $PM_{10}$ ) and the addition of major sources requires compliance with PSD regulations. There is also a 25 ton/year level for total particulate.

Air pollutants include  $O_3$ , CO,  $NO_2$ ,  $SO_2$ , Pb, and particulate matter. Ground disturbing activities create  $PM_{10}$  and particulate matter 2.5 microns in diameter ( $PM_{2.5}$ ). Combustion creates CO,  $SO_2$ ,  $PM_{10}$ , and  $PM_{2.5}$  particulate matter and the precursors (VOC and  $NO_2$ ) to  $O_3$ . Only small amounts of Hazardous Air Pollutants (HAP) are generated from internal combustion processes or earth-moving activities. The Grand Forks AFB Final Emissions Survey Report (USAF, 1996) reported that Grand Forks AFB only generated small levels HAPs, 10.3 tpy of combined HAPs and 2.2 tpy maximum of a single HAP (methyl ethyl ketone). Methyl Ethyl Ketone is associated with aircraft and vehicle maintenance and repair. Secondary sources include fuel storage and dispensing (USAF, 2001a).

Table 3.2-2

National Ambient Air Quality Standards (NAAQS) and ND Ambient Air Quality Standards (NDAAQS)

| Pollutant                      | Averaging Time    | NAAQS<br>µg/m <sup>3</sup> (ppm) <sup>a</sup> |                        | NDAAQS<br>µg/m <sup>3</sup> (ppm) <sup>a</sup> |
|--------------------------------|-------------------|---|------------------------|--|
|                                |                   | Primary <sup>b</sup>                          | Secondary <sup>c</sup> |  |
| O <sub>3</sub>                 | 1 hr              | 235 (0.12)                                    | Same                   | Same   |
|                                | 8 hr <sup>e</sup> | 157 (0.08)                                    | Same                   | None   |
| CO                             | 1 hr              | 40,000 (35)                                   | None                   | 40,000 (35)                                    |
|                                | 8 hr              | 10,000 (9)                                    | None                   | 10,000 (9)                                     |
| NO <sub>2</sub>                | AAM <sup>d</sup>  | 100 (0.053)                                   | Same                   | Same   |
| SO <sub>2</sub>                | 1 hr              | None  | None                   | 715 (0.273)                                    |
|                                | 3 hr              | None  | 1,300 (0.5)            | None   |
|                                | 24 hr             | 365 (0.14)                                    | None                   | 260 (0.099)                                    |
|                                | AAM               | 80 (0.03)                                     | None                   | 60 (0.023)                                     |
| PM <sub>10</sub>               | AAM               | 50  | Same                   | Same   |
|                                | 24 hr             | 150   | Same                   | Same   |
| PM <sub>2.5</sub> <sup>e</sup> | AAM               | 65  | Same                   | None   |
|                                | 24 hr             | 15  | Same                   | None   |
| Pb                             | 1/4 year          | 1.5   | Same                   | Same   |
| H <sub>2</sub> S               | 1 hr              | None  | None                   | 280 (0.20)                                     |
|                                | 24 hr             | None  | None                   | 140 (0.10)                                     |
|                                | 3 mth             | None  | None                   | 28 (0.02)                                      |
|                                | AAM               | None  | None                   | 14 (10)  |
|                                | Instantaneous     |   |                        | 14 (10)  |

<sup>a</sup>µg/m<sup>3</sup> – micrograms per cubic meter; ppm – parts per million<sup>b</sup>National Primary Standards establish the level of air quality necessary to protect the public health from any known or anticipated adverse effects of pollutant, allowing a margin of safety to protect sensitive members of the population.<sup>c</sup>National Secondary Standards establish the level of air quality necessary to protect the public welfare by preventing injury to agricultural crops and livestock, deterioration of materials and property, and adverse impacts on the environment.<sup>d</sup>AAM – Annual Arithmetic Mean.<sup>e</sup>The Ozone 8-hour standard and the PM 2.5 standards are included for information only. A 1999 federal court ruling blocked implementation of these standards, which USEPA proposed in 1997. USEPA has asked the US Supreme Court to reconsider that decision (USEPA, 2000).PM<sub>10</sub> is particulate matter equal to or less than 10 microns in diameter.PM<sub>2.5</sub> is particulate matter equal to or less than 2.5 microns in diameter.

Source: 40 CFR 50, ND Air Pollution Control Regulations – North Dakota Administrative Code (NDAC) 33-15

### 3.3 NOISE

Noise generated on Grand Forks AFB consists mostly of aircraft, vehicular traffic and construction activity. Most noise is generated from aircraft during takeoff and landing and not from ground traffic. Noise levels are dependent upon type of aircraft, type of operations, and distance from the observer to the aircraft. Duration of the noise is dependent upon proximity of the aircraft, speed, and orientation with respect to the observer.

Table 3.3-1

Typical Decibel Levels Encountered in the Environment and Industry

| Sound Level (dBA) <sup>a</sup> | Maximum Exposure Limits | Source of Noise  | Subjective Impression                                  |
|--------------------------------|-------------------------|--|--|
| 10                             |                         |  | Threshold of hearing                                   |
| 20                             |                         | Still recording studio; Rustling leaves  |  |
| 30                             |                         | Quiet bedroom  |  |
| 35                             |                         | Soft whisper at 5 ft <sup>b</sup> ; Typical library  |  |
| 40                             |                         | Quiet urban setting (nighttime); Normal level in home                                      | Threshold of quiet                                     |
| 45                             |                         | Large transformer at 200 ft  |  |
| 50                             |                         | Private business office; Light traffic at 100 ft; Quiet urban setting (daytime)            |  |
| 55                             |                         | Window air conditioner; Men's clothing department in store                                 | Desirable limit for outdoor residential area use (EPA) |
| 60                             |                         | Conversation speech; Data processing center  |  |
| 65                             |                         | Busy restaurant; Automobile at 100 ft  | Acceptable level for residential land use              |
| 70                             |                         | Vacuum cleaner in home; Freight train at 100 ft  | Threshold of moderately loud                           |
| 75                             |                         | Freeway at 10 ft   |  |
| 80                             |                         | Ringing alarm clock at 2 ft; Kitchen garbage disposal; Loud orchestral music in large room | Most residents annoyed                                 |
| 85                             |                         | Printing press; Boiler room; Heavy truck at 50 ft  | Threshold of hearing damage for prolonged exposure     |
| 90                             | 8 hr <sup>c</sup>       | Heavy city traffic   |  |
| 95                             | 4 hr                    | Freight train at 50 ft; Home lawn mower  |  |
| 100                            | 2 hr                    | Pile driver at 50 ft; Heavy diesel equipment at 25 ft                                      | Threshold of very loud                                 |
| 105                            | 1 hr                    | Banging on steel plate; Air Hammer   |  |
| 110                            | 0.5 hr                  | Rock music concert; Turbine condenser  |  |
| 115                            | 0.25 hr                 | Jet plane overhead at 500 ft   |  |
| 120                            | < 0.25 hr               | Jet plane taking off at 200 ft   | Threshold of pain                                      |
| 135                            | < 0.25 hr               | Civil defense siren at 100 ft  | Threshold of extremely loud                            |

<sup>a</sup>dBA – decibals<sup>b</sup>ft – feet<sup>c</sup>hr - hours

Source: US Army, 1978

Table 3.3-2

Approximate Sound Levels (dBA) of Construction Equipment

| Equipment Type   | Sound Levels (dBA) at Various Distances (ft) |     |     |     |     |       |
|------------------|--|-----|-----|-----|-----|-------|
|                  | 50   | 100 | 200 | 400 | 800 | 1,600 |
| Front-end Loader | 84   | 78  | 72  | 66  | 60  | 54    |
| Dump Truck       | 83   | 77  | 71  | 65  | 59  | 53    |
| Truck            | 83   | 77  | 71  | 65  | 59  | 53    |
| Tractor          | 84   | 78  | 72  | 66  | 58  | 52    |

Source: Thurman, 1976; US Army, 1978

Because military installations attract development in proximity to their airfields, the potential exists for urban encroachment and incompatible development. The USAF utilizes a program known as AICUZ to help alleviate noise and accident potential problems due to unsuitable community development. AICUZ recommendations give surrounding communities alternatives to help prevent urban encroachment. Noise contours are developed from the Day-Night Average A-Weighted Sound Level (DNL) data which defines the noise created by flight operations and ground-based activities. The AICUZ also defines Accident Potential Zones (APZs), which are rectangular corridors extending from the ends of the runways. Recommended land use activities and densities in the APZs for residential, commercial, and industrial uses are provided in the base's AICUZ study. Grand Forks AFB takes measures to minimize noise levels by evaluating aircraft operations. Blast deflectors are utilized in designated areas to deflect blast and minimize exposure to noise.

## 3.4 WASTES, HAZARDOUS MATERIALS, AND STORED FUELS

### 3.4.1 Hazardous Waste, Hazardous Material, Recyclable Material

Hazardous wastes, as listed under the RCRA, are defined as any solid, liquid, contained gaseous, or combination of wastes that pose a substantive or potential hazard to human health or the environment. On-base hazardous waste generation involves three types of on-base sites: an accumulation point (90-day), satellite accumulation points, and spill cleanup equipment and materials storage (USAF, 2001c). Discharge and emergency response equipment is maintained in accessible areas throughout Grand Forks AFB. The Fire Department maintains adequate fire response and discharge control and containment equipment. Equipment stores are maintained in buildings 409 and 530. Petroleum contaminated soils generated from excavations throughout the base can be treated at the land treatment facility located on base. These solid wastes are tilled or turned several times a year to remediate the soils to acceptable levels.

Recyclable materials from industrial facilities are collected in the recycling facility, in building 671. Paper, cardboard, and wood are collected in separate storage bins. Glass, plastics and metal cans are commingled. Curbside containers are used in housing for recyclable materials. A contractor collects these materials and transports them off base for processing.

The Environmental Management Flight manages the hazardous material through a contract with Science Applications International Corporation (SAIC). Typical hazardous materials include reactive materials such as explosives, ignitables, toxics, and corrosives. Improper storage can impact human health and the safety of the environment.

### 3.4.2 Underground and Above Ground Storage Tanks

Since Grand Forks AFB is a military installation with a flying mission, there are several aboveground and underground fuel storage tanks (ASTs and USTs).

Gasoline, diesel fuel, heating fuel, JP-8, and oil-water separator (OWS)-recovered oils are stored in thirty-nine (39) USTs. Twenty (20) regulated USTs include three (3) gasoline tanks, eight (8) diesel tanks, three (3) JP-8 tanks, and six (6) OWS product recovery tanks. Deferred USTs

include five (5) JP-8 tanks. Five (5) USTs exempt from regulation include one (1) heating oil tank, four (4) emergency spill containment tanks, and one (1) hydraulic oil recovery tank.

Gasoline, diesel fuel, heating oil, JP-8, and used oil are stored in fifty-eight (58) ASTs. The majority of petroleum is JP-8 stored in six (6) tanks with a capacity of 3,990,000 gallons for the hydrant fuel system. Diesel fuel is stored in forty-five (45) tanks primarily for emergency generators. Other tanks include: heating oil stored in three (2) tanks; gasoline stored in two (2) tanks; and, used oil stored in three (3) tanks. All ASTs either have secondary containment or are programmed to have secondary containment installed. The six (6) hydrant fuel system tanks each are contained by a concrete dike system.

Runway deicing fluid (potassium acetate) is stored in two (2) 5000 gallon tanks while aircraft deicing fluid (propylene glycol) is stored in a 20,000 gallon tank (Type I) and a 4,000 gallon tank (Type IV).

#### 3.4.3 Solid Waste Management

Hard fill, construction debris, and inert waste generated by Grand Forks AFB are disposed of at a permitted off-base landfill. All on-base household garbage and solid waste is collected by a contractor and transported to the Grand Forks County Landfill, which opened in 1982.

The majority of demolition debris is disposed of at Berger Landfill (permit number IT-198) while municipal waste and asbestos waste is disposed of at the Grand Forks Landfill (SW-069).

GFAFB also operates a land treatment facility (IT-183) for the remediation of petroleum-contaminated soils (PCSs). PCSs are generated on-base through spills, are encountered while excavating for various subsurface repairs, or encountered while replacing or removing underground storage tanks and piping.

### 3.5 WATER RESOURCES

#### 3.5.1 Ground Water

Chemical quality of ground water is dependent upon the amount and type of dissolved gases, minerals, and organic material leached by water from surrounding rocks as it flows from recharge to discharge areas. The water table depth varies throughout the base, from a typical 1-3 ft to 10 ft or more below the surface.

Even though the Dakota Aquifer has produced more water than any other aquifer in Grand Forks County, the water is very saline and generally unsatisfactory for domestic and most industrial uses. Its primary use is for livestock watering. It is sodium chloride type water with total dissolved solids concentrations of about 4,400 ppm. The water generally contains excessive chloride, iron, sulfate, total dissolved solids, and fluoride. The water from the Dakota is highly toxic to most domestic plants and small grain crops, and in places, the water is too highly mineralized for use as livestock water (Hansen and Kume, 1970).

Water from wells tapping the Emerado Aquifer near Grand Forks AFB is generally of poor quality due to upward leakage of poor quality water from underlying bedrock aquifers. It is sodium sulfate type water with excessive hardness, chloride, sulfate, and total dissolved solids. Water from the Lake Agassiz beach aquifers is usually of good chemical quality in Grand Forks County. The water is a calcium bicarbonate type that is relatively soft. The total dissolved content ranges from 308 to 1,490 ppm. Most water from beach aquifers is satisfactory for industrial, livestock, and agricultural uses (Hansen and Kume, 1970).

Grand Forks AFB draws 85 to 90 percent of its water for industrial, commercial and housing functions from the City of Grand Forks and 10 to 15 percent from Agassiz Water.

### 3.5.2 Surface Water

Natural surface water features located on or near Grand Forks AFB are the Turtle River and Kellys Slough National Wildlife Refuge (NWR). Drainage from surface water channels ultimately flows into the Red River.

The Turtle River, crossing the base boundary at the northwest corner, is very sinuous and generally flows in a northeasterly direction. It receives surface water runoff from the western portion of Grand Forks AFB and eventually empties into the Red River of the North that flows north to Lake Winnipeg, Canada. The Red River drainage basin is part of the Hudson Bay drainage system. At Manvel, ND, approximately 10 miles northeast of Grand Forks AFB, the mean discharge of the Turtle River is 50.3 feet cubed per second ( $\text{ft}^3/\text{s}$ ). Peak flows result from spring runoff in April and minimum flows (or no flow in some years) occur in January and February.

NDDH has designated the Turtle River to be a Class II stream, it may be intermittent, but, when flowing, the quality of the water, after treatment, meets the chemical, physical, and bacteriological requirements of the NDDH for municipal use. The designation also states that it is of sufficient quality to permit use for irrigation, for propagation of life for resident fish species, and for boating, swimming, and other water recreation.

Kelly's Slough NWR occupies a wide, marshy flood plain with a poorly defined stream channel, approximately two miles east and downstream of Grand Forks AFB. Kellys Slough NWR receives surface water runoff from the east half of the base and effluent from the base sewage lagoons located east of the base. Surface water flow of the slough is northeasterly into the Turtle River Drainage from surface water channels ultimately flowing into the Red River. Floodplains are limited to an area 250 ft on either side of Turtle River (about 46 acres on base). Appendix C contains a map depicting floodplains. Any development in or modifications to floodplains must be coordinated with the Corps of Engineers and the Federal Emergency Management Agency (FEMA). The North Dakota State Water Commission requires that any structure in the floodplain have its lowest floor above the identified 100-year flood level.

Surface water runoff leaves Grand Forks AFB at four primary locations related to identifiable drainage areas on base. The four sites are identified as northeast, northwest, west, and southeast related to the base proper. These outfalls were approved by the NDDH as stated in the Grand

Forks AFB ND Pollutant Discharge Elimination System (NDPDES) Permit NDR02-0314 Stormwater Discharges from Industrial Activity. Of the four outfall locations, the west and northwest sites flow into the Turtle River, the northeast site flows to the north ditch and the southeast outfall flows into the south ditch. The latter two flow to Kellys Slough and then the Turtle River. All drainage from these surface water channels ultimately flows into the Red River. The Bioenvironmental Engineering Office samples the four outfall locations during months when de-icing activities occur on base.

### 3.5.3 Waste Water

Grand Forks AFB discharges its domestic and industrial wastewater to four stabilization lagoons located east of the main base. The four separate treatment cells consist of one primary treatment cell, two secondary treatment cells, and one tertiary treatment cell. Wastewater effluent is discharged under ND Permit ND0020621 into Kellys Slough. Wastewater discharge occurs for about one week, sometime between mid-April though October. Industrial wastewater at the base comprises less than ten percent of the total flow to the treatment lagoons.

### 3.5.4 Water Quality

According to the National Water Quality Inventory Report (USEPA, 1995), ND reports the majority of rivers and streams have good water quality. Natural conditions, such as low flows, can contribute to violations of water quality standards. During low flow periods, the rivers are generally too saline for domestic use. Grand Forks AFB receives water from Grand Forks and Lake Agassiz Water. The city recovers its water from the Red River and the Red Lake River, while the water association provides water from aquifers. The water association recovers water from well systems within glacial drift aquifers (USAF, 1999). The 319th Civil Engineering Squadron tests the water received on base daily for fluorine and chlorine. The 319th Bioenvironmental Flight collects monthly bacteriological samples to be analyzed at the ND State Laboratory.

### 3.5.5 Wetlands

About 246,900 acres in the county are drained wetland Type I (wet meadow) to Type V (open freshwater). Approximately 59,500 acres of wetland Type I to V are used for wetland habitat. Wetland Types IV and V include areas of inland saline marshes and open saline water. Kellys Slough NWR occupies a wide, marshy flood plain with a poorly defined stream channel, approximately two miles east and downstream of Grand Forks AFB. Kellys Slough NWR is the most important regional wetland area in the Grand Forks vicinity. EO 11990 requires zero loss of wetlands. Earlier surveys indicated Grand Forks AFB had 49 wetlands, covering 23.9 acres of wetlands, including 33 jurisdictional wetlands covering 12.2 acres. A wetland delineation conducted in 2004 indicated that the base had increased to 198 wetlands, including 164 Palustrine Emergent, 31 Palustrine Scrub-Shrub, and 3 Palustrine Forested type wetlands. Vegetation is robust at GFAFB wetlands, and they are characterized as typical prairie potholes found within the northern plains ecoregion.

Wetlands on Grand Forks AFB occur frequently in drainage ways, low-lying depressions, and potholes. Wetlands are highly concentrated in drainage ways leading from the wastewater treatment lagoons to Kellys Slough NWR. The majority of wetland areas occur in the northern and central portions of base, near the runway, while the remaining areas are near the eastern boundary and southeastern corner of base. Development in or near these areas must include coordination with the ND State Water Commission and the USACE. To help preserve wetlands, the North Dakota, Grand Forks County regional office of the Natural Resource Conservation Service recommends a 100-ft vegetated (grass) buffer with a perimeter filter strip.

## 3.6 BIOLOGICAL RESOURCES

### 3.6.1 Vegetation

Plants include a large variety of naturally occurring native plants. Hay land, wildlife management areas, waterfowl production areas, neighboring wildlife refuges, state parks, and conservation reserve program land have created excellent grassland and wetland habitats for wildlife in Grand Forks County. Pastures, meadows, and other non-cultivated areas create a prairie-land mosaic of grasses, legumes, and wild herbaceous plants. Included in the grasses and legumes vegetation species are tall wheat grass, brome grass, Kentucky bluegrass, sweet clover, and alfalfa. Herbaceous plants include little bluestem, goldenrod, green needle grass, western wheat grass, and bluegrama. Shrubs such as Juneberry, dogwood, hawthorn, buffaloberry, and snowberry also are found in the area. In wetland areas, predominant species include *Typha* sp., smartweed, wild millet, cord grass, bulrushes, sedges, and reeds. These habitats for upland wildlife and wetland wildlife attract a variety of species to the area and support many aquatic species.

Various researchers, most associated with the University of ND, have studied current native floras in the vicinity of the base. The Natural Heritage Inventory through field investigations has identified ten natural communities occurring in Grand Forks County (1994). Of these, two communities are found within base boundaries, River/Creek and Lowland Woodland. The River/Creek natural community refers to the Turtle River. This area is characterized by submergent and emergent aquatic plants, green algae, diatoms, diverse invertebrate animals such as sponges, flatworms, nematode worms, segmented worms, snails, clams, and immature and adult insects, fish, amphibians, turtles, and aquatic birds and mammals. Dominant trees in the Lowland Community include elm, cottonwood, and green ash. Dutch elm disease has killed many of the elms. European buckthorn (a highly invasive exotic species), chokecherry, and wood rose (*Rosa woodsii*) are common in the under story in this area. Wood nettle (*Laportea canadensis*), stinging nettle (*Urtica dioica*), beggars' ticks (*Bidens frondosa*), and waterleaf (*Hydrophyllum virginianum*) are typical forbes.

A prairie restoration project in the "Prairie View Nature Preserve" has been developed to restore a part of the native tallgrass prairie that once was dominant in this region. Plants thriving in this preserve include western wheatgrass, slender wheatgrass, big bluestem, little bluestem, Indian grass, switchgrass, blue gramma, buffalo grass, and many native wildflower species. The Grand Forks AFB Natural Resources Manager installed a butterfly garden in the Prairie View Nature

Preserve in the fall of 2005, on National Public Lands Day. Volunteers helped plant the 1,300 square foot garden with about 50 different perennial varieties and shrubs.

Two hundred and fifty five taxa were identified in the ND Natural Heritage Inventory and the BS Bioserve biological inventory update for Grand Forks Air Force Base. Two rare orchid species are known to exist on Grand Forks AFB, the Large and Small Yellow Lady's Slipper, identified during the 2004 inventory.

### 3.6.2 Wildlife

Grand Forks County is agrarian in nature, however it does have many wildlife management areas, waterfowl production areas, conservation reserve program land, and recreational areas providing excellent habitat for local wildlife within the county. Kellys Slough NWR is located a couple miles northeast of Grand Forks AFB. In addition to being a wetland, it is a stopover point for thousands of migratory birds, especially shorebirds. The Prairie Chicken Wildlife Management Area is located north of Mekinock and contains 1,160 acres of habitat for deer, sharp-tailed grouse, and game birds. Wildlife can also be found at the Turtle River State Park, The Bremer Nature Trail, and the Myra Arboretum.

The base supports a remarkable diversity of wildlife given its size and location within an agricultural matrix. The Turtle River riparian corridor, Prairie View Nature Preserve, grassland areas on the west side of the base, and the lagoons to the east of the base all provide important habitat for native plant and wildlife species and should be conserved as such within mission constraints. Many mammalian species are found on base such as the white tail deer, eastern cottontail, coyotes, beaver, raccoons, striped skunks, badgers, voles, gophers, shrews, mice, muskrat, squirrels, bats, and occasional moose and bear.

One hundred seventy bird species were identified in the 2004 biological survey, many of which include grassland bird species. Grassland bird populations are declining across North America due to huge losses of prime grassland habitat from conversion to agricultural, urban, and industrial development. No other avian group has experienced such dramatic losses as grassland birds. GFAFB is fortunate to support a large variety of grassland birds, many of which are listed on the Partners-in-Flight species of concern list, such as the grasshopper sparrow. Large blocks of grassland should be conserved to protect these grassland bird species if the mission constraints allow it.

### 3.6.3 Threatened and Endangered Species

According to the Biological Survey Update 2004 of GFAFB, 21 state-listed birds and 1 federally listed bird species, 2 state-listed plant species, 1 state-listed mammal species, and 1 state-listed amphibian have been identified at GFAFB. The base does have infrequent use by migratory threatened and endangered species, such as the bald eagle, but there are no critical or significant habitats for those species present. Several rare and state-listed species have been observed on base near Turtle River, the lagoons, and the grassland to the west of the airfield. The ESA does require that Federal Agencies not jeopardize the existence of a threatened or endangered species nor destroy or adversely modify designated critical habitat for threatened or endangered species.

### 3.7 SOCIOECONOMIC RESOURCES

Grand Forks County is primarily an agricultural region and, as part of the Red River Valley, is one of the worlds most fertile. Cash crops include sugar beets, beans, corn, barley, and oats. The valley ranks first in the nation in the production of potatoes, spring wheat, sunflowers, and durum wheat. Grand Forks County's population in 2000 was 66,109, a decrease of 6.5 percent from the 1990 population of 70,638 (ND State Data Center, No Date). Grand Forks County's annual mean wage in Oct 2001 was \$26,715 (Job Service of ND, 2001). Grand Forks AFB is one of the largest employers in Grand Forks County. As of Sep 2003, Grand Forks AFB had 2,928 active duty military members and 380 civilian employees. The total annual economic impact for Grand Forks AFB is \$379,000,000.

### 3.8 CULTURAL RESOURCES

According to the Grand Forks AFB Cultural Resources Management Plan, there are no archeological sites that are potentially eligible for the National Register of Historic Places (NRHP). A total of six archeological sites and six archeological find spots have been identified on the base. None meet the criteria of eligibility of the NRHP established in 36 CFR 60.4. There is no evidence for Native American burial grounds, or other culturally sensitive areas. Paleosols (soil that developed on a past landscape) remain a management concern requiring Section 106 compliance. Reconnaissance-level archival and archeological surveys of Grand Forks AFB conducted by the University of ND in 1989 indicated that there are no facilities (50 years or older) that possess historical significance. The base is currently consulting with the ND Historical Society on the future use of eight Cold War Era facilities. These are buildings 313, 606, 703, 704, 705, 706, 707, and 714.

### 3.9 LAND USE

Land use in Grand Forks County consists primarily of cultivated crops with remaining land used for pasture and hay, urban development, recreation, and wildlife habitat. Principal crops are spring wheat, barley, sunflowers, potatoes, and sugar beets. Turtle River State Park, developed as a recreation area in Grand Forks County, is located about five miles west of the base. Several watershed protection dams are being developed for recreation activities including picnicking, swimming, and ball fields. Wildlife habitat is very limited in the county. Kellys Slough NWR (located about two miles east of the base) and the adjacent National Waterfowl Production Area are managed for wetland wildlife and migratory waterfowl, but they also include a significant acreage of open land wildlife habitat.

The main base encompasses 5,420 acres, of which the USAF owns 4,830 acres and another 590 acres are lands containing easements, permits, and licenses. Improved grounds, consisting of all covered area (under buildings and sidewalks), land surrounding base buildings, the 9-hole golf course, recreational ball fields, and the family housing area, encompass 1,120 acres. Semi-improved grounds, including the airfield, fence lines and ditch banks, skeet range, and riding stables account for 1,390 acres. The remaining 2,910 acres of the installation consist of unimproved grounds. These areas are comprised of woodlands, open space, and wetlands,

including four lagoons (180.4 acres) used for the treatment of base wastewater. Agricultural out leased land (1,040 acres) is also classified as unimproved. Land use at the base is solely urban in nature, with residential development to the south and cropland, hayfields, and pastures to the north, west, and east of the base.

### 3.10 TRANSPORATION SYSTEMS

Seven thousand vehicles per day travel ND County Road B3 from Grand Forks AFB's east gate to the US Highway 2 Interchange (Clayton, 2001). Two thousand vehicles per day use the off-ramp from US Highway 2 onto ND County Road B3 (Dunn, 2001). US Highway 2, east of the base interchange, handles 10,800 vehicles per day. (Kingsley and Kuntz, 2001). A four lane arterial road has a capacity of 6,000 vehicles per hour and a two lane, 3,000, based on the average capacity of 1,500 vehicles per hour per lane. Roadways adjacent to Grand Forks AFB are quite capable of accommodating existing traffic flows (USAF, 2001a).

Grand Forks AFB has good traffic flow even during peak hours (6-8 am and 4-6 pm). There are two gates: the main gate located off of County Road B3, about one mile north of U.S. Highway 2 and the Secondary Gate located off of U.S. Highway 2, about 3/4 mile west of County Road B3. The main gate is connected to Steen Boulevard (Blvd), which is the main east-west road, and serves the passenger traffic; and the south gate is connected to Eielson Street (St), which is the main north-south road and serves the truck traffic.

### 3.11 AIRSPACE/AIRFIELD OPERATIONS

#### 3.11.1 AIRCRAFT SAFETY

Bird Aircraft Strike Hazard (BASH) is a major safety concern for military aircraft. Collision with birds may result in aircraft damage and aircrew injury, which may result in high repair costs or loss of the aircraft. A BASH hazard exists at Grand Forks AFB and its vicinity, due to resident and migratory birds. Daily and seasonal bird movements create various hazardous conditions. Although BASH problems are minimal, Kellys Slough NWR is a major stopover for migratory birds. Canadian Geese and other large waterfowl have been seen in the area (USAF, 2001b).

#### 3.11.2 AIRSPACE COMPATIBILITY

The primary objective of airspace management is to ensure the best possible use of available airspace to meet user needs and to segregate requirements that are incompatible with existing airspace or land uses. The Federal Aviation Administration has overall responsibility for managing the nation's airspace and constantly reviews civil and military airspace needs to ensure all interests are compatibly served to the greatest extent possible. Airspace is regulated and managed through use of flight rules, designated aeronautical maps, and air traffic control procedures and separation criteria.

### 3.12 SAFETY AND OCCUPATIONAL HEALTH

Safety and occupational health issues include one-time and long-term exposure. Examples include asbestos/radiation/chemical exposure, explosives safety quantity-distance, and bird/wildlife aircraft hazard. Safety issues include injuries or deaths resulting from a one-time accident. Aircraft Safety includes information on birds/wildlife aircraft hazards and the BASH program. Health issues include long-term exposure to chemicals such as asbestos and lead-based paint. Safety and occupational health concerns could impact personnel working on the project and in the surrounding area.

The National Emission Standards for Hazardous Air Pollutants (NESHAP) of the CAA designates asbestos as HAP. OSHA provides worker protection for employees who work around or asbestos containing material (ACM). Regulated ACM (RACM) includes thermal system insulation (TSI), any surfacing material, and any friable asbestos material. Non-regulated Category I non-friable ACM includes floor tile and joint compound.

Lead exposure can result from paint chips or dust or inhalation of lead vapors from torch-cutting operations. This exposure can affect the human nervous system. Due to the size of children, exposure to lead based paint is especially dangerous to small children. OSHA considers all painted surfaces in which lead is detectable to have a potential for occupational health exposure.

### 3.13 ENVIRONMENTAL MANAGEMENT

#### 3.13.1 ENVIRONMENTAL RESTORATION PROGRAM

The Environmental Restoration Program (ERP) is the AF's environmental restoration program based on the CERCLA. CERCLA provides for Federal agencies with the authority to inventory, investigate, and clean up uncontrolled or abandoned hazardous waste sites. There are seven ERP sites at Grand Forks AFB. These sites are identified as potentially impacted by past hazardous material or hazardous waste activities. They are the Fire Training Area/Old Sanitary Landfill Area, FT-02; New Sanitary Landfill Area, LF-03; Strategic Air Ground Equipment (SAGE) Building 306, ST-04; Explosive Ordnance Detonation Area, OT-05; Refueling Ramps and Pads, Base Tanks Area, ST-06; POL Off-Loading Area, ST-07; and Refueling Ramps and Pads, ST-08 (USAF, 1997b). Two sites are considered closed, OT-05 and ST-06. ST-08 has had a remedial investigation/feasibility study (RI/FS) completed and the rest are in long-term monitoring. Grand Forks AFB is not on the National Priorities List (NPL).

#### 3.13.2 GEOLOGICAL RESOURCES

##### 3.13.2.1 Physiography and Topography

The topography of Grand Forks County ranges from broad, flat plains to gently rolling hills that were produced mainly by glacial activity. Local relief rarely exceeds 100 ft in one mile, and, in parts of the lake basin, less than five ft in one mile.

Grand Forks AFB is located within the Central Lowlands physiographic province. The topography of Grand Forks County, and the entire Red River Valley, is largely a result of the former existence of Glacial Lake Agassiz, which existed in this area during the melting of the

last glacier, about 12,000 years ago (Stoner et al., 1993). The eastern four-fifths of Grand Forks County, including the base, lies in the Agassiz Lake Plain District, which extends westward to the Pembina escarpment in the western portion of the county. The escarpment separates the Agassiz Lake Plain District from the Drift Plain District to the west. Glacial Lake Agassiz occupied the valley in a series of recessive lake stages, most of which were sufficient duration to produce shoreline features inland from the edge of the lake. Prominent physiographic features of the Agassiz Lake Plain District are remnant lake plains, beaches, inter-beach areas, and delta plains. Strandline deposits, associated with fluctuating lake levels, are also present and are indicated by narrow ridges of sand and gravel that typically trend northwest-southwest in Grand Forks County.

Grand Forks AFB lies on a large lake plain in the eastern portion of Grand Forks County. The lake plain is characterized by somewhat poorly drained flats and swells, separated by poorly drained shallow swells and sloughs (Doolittle et al., 1981). The plain is generally level, with local relief being less than one foot. Land at the base is relatively flat; with elevations ranging from 880 to 920 ft mean sea level (MSL) and averaging about 890 ft MSL. The land slopes to the north at less than 12 ft per mile.

### 3.13.2.2 Soil Type Condition

Soils consist of the Gilby loam series that are characterized by deep, somewhat poorly drained, moderately to slowly permeable soils in areas between beach ridges. The loam can be found from 0 to 12 inches. From 12 to 26 inches, the soil is a mixture of loam, silt loam, and very fine sandy loam. From 26 to 60 inches, the soil is loam and clay loam.

### 3.13.3 PESTICIDE MANAGEMENT

Pesticides are handled at various facilities including Environmental Controls, Golf Course Maintenance, and Grounds Maintenance. Other organizations assist in the management of pesticides and monitoring or personnel working with pesticides. Primary uses are for weed and mosquito control. Herbicides, such as picloram, nonselective glyphosate and 2, 4-D are used to maintain areas on base. Military Public Health and Bioenvironmental Engineering provide information on the safe handling, storage, and use of pesticides. Military Public Health maintains records on all pesticide applicators. The Fire Department on-base provides emergency response in the event of a spill, fire, or similar type incident.

## 3.14 ENVIRONMENTAL JUSTICE

Environmental justice addresses the minority and low-income characteristics of the area, in this case Grand Forks County. The county is more than 93 percent Caucasian, 2.3 percent Native American, 1.4 percent African-American, 1 percent Asian/Pacific Islander, less than 1 percent Other, and 1.6 percent “Two or more races”. In comparison, the US is 75.2 percent Caucasian, 12.3 African-American, 0.9 percent Native American or Native Alaskan, 3.6 percent Asian, 0.1 Native Hawaiian or Pacific Islander, 5.5 percent Other, and 2.4 percent “Two or more races”. Approximately 12.5 percent of the county’s population is below the poverty level in comparison to 13.3 percent of the state (US Bureau of the Census, 2002). There are few residences and no

concentrations of low-income or minority populations around Grand Forks AFB.

## **4.0 ENVIRONMENTAL CONSEQUENCES**

### **4.1 INTRODUCTION**

The effects of the proposed action and the alternatives on the affected environment are discussed in this section. The project involves demolition of building 452 on Grand Forks AFB.

### **4.2 AIR QUALITY**

#### **4.2.1 Alternative 1 (No Action)**

The no action alternative would not impact air quality.

#### **4.2.2 Alternatives 2 (Proposed Action)**

No long-term effects; however short term effects involve heavy construction equipment emissions (not a concern as they are mobile sources) and fugitive dust (mentioned on our Title V permit). Air Quality is considered good and the area is in attainment for all criteria pollutants. Fugitive emissions from demolition activities are expected to be below the regulatory threshold and would be managed in accordance with NDAC 33-15-17-03. Best management practices (BMPs) to reduce fugitive emissions would be implemented to reduce the amount of these emissions.

#### **4.2.3 Alternative 3**

Impacts would be similar to those generated under the proposed action.

### **4.3 NOISE**

#### **4.3.1 Alternative 1 (No Action)**

The no action alternative would not impact noise generation.

#### **4.3.2 Alternative 2 (Proposed Action)**

The short-term operation of heavy equipment in the demolition area would generate additional noise. These noise impacts would exist only during operations and would cease after completion. The increase in noise from activities would be negligible.

#### **4.3.3 Alternative 3**

Impacts would be similar to those generated under the proposed action.

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## 4.4 WASTES, HAZARDOUS MATERIALS, AND STORED FUELS

### 4.4.1 Alternative 1 (No Action)

The no action alternative would not impact hazardous or solid waste generation.

### 4.4.2 Alternative 2 (Proposed Action)

The increase in hazardous and solid wastes from demolition of building 452 would be temporary. An approximate 315,000 pounds of debris would be generated. Solid waste debris would be disposed of in approved location, such as the Grand Forks Municipal Landfill, which is located within 12 miles of the proposed site. Ceiling and floor tile in Building 452 is assumed to be asbestos-containing-material. All solid waste materials would be managed and transported in accordance with the state's solid and hazardous waste rules. Appropriate efforts to reduce, reuse and/or recycle waste materials are encouraged by the State of North Dakota. Inert waste should be segregated from non-inert waste, where possible, to reduce the cost of waste management.

### 4.4.3 Alternative 3

Impacts would be similar to those generated under the proposed action.

## 4.5 WATER RESOURCES

### 4.5.1 Alternative 1 (No Action Alternative)

The no action alternative would have no impact on groundwater, surface water, wastewater, water quality, or wetlands.

### 4.5.2 Alternative 2 (Proposed Alternative)

Groundwater: Provided best management practices are followed, there will be minimal impacts on ground water.

Surface Water: Surface water quality could be degraded during actual demolition in the immediate area. The short-term effects come from possible erosion contributing to turbidity of runoff and possible contamination from spills or leaks from construction equipment. The contractor must utilize effective methods to control surface water runoff and minimize erosion. Proper stabilization and seeding the site immediately upon completion of the demolition would provide beneficial vegetation, controlling erosion. Provided best management practices are utilized during design and demolition, negative surface water impacts should be minimal.

Wastewater: The proposed action would have no impact on wastewater.

Water Quality: Provided containment needs are met and best management practices are used, the proposed action would have minimal impact to water quality.

Wetlands: There are no wetlands in this area. Activity in any wetlands cannot occur without a Clean Water Act section 404 permit from the Army Corps of Engineers. No dumping, filling, dredging, or changing of the wetland hydrologic structure is permitted without a permit.

#### 4.5.3 Alternative 3

Impacts would be similar to those generated under the proposed action.

### 4.6 BIOLOGICAL RESOURCES

#### 4.6.1 Alternative 1 (No Action)

The no action alternative would not impact wildlife, vegetation, or other biological resources.

#### 4.6.2 Alternative 2 (Proposed Action)

Vegetation: BMPs and control measures, including covering of stockpiles and drain openings, would be implemented to ensure that impacts to biological resources be kept to a minimum. The amount of vegetation disturbed would be kept to the minimum required to complete the action. Disturbed areas should be re-established. There would be a short-term minimal loss of vegetation from demolition activities, and a gain of the building footprint that is to be reseeded to grass. Current vegetation is unkempt and weedy. Area should be added to the grounds maintenance contract for mowing.

Noxious Weeds: Public law 93-629 mandates control of noxious weeds. Limit possible weed seed transport from infested areas to non-infested sites. Avoid activities in or adjacent to heavily infested areas or remove seed sources and propagules from site prior to conducting activities, or limit operations to non-seed producing seasons. Wash or otherwise remove all vegetation and soil from equipment before transporting to a new site. Mitigate activities which expose the soil by covering the area with weed seed free mulch and/or seed the area with native species. Covering the soil will reduce the germination of weed seeds, maintain soil moisture, and minimize erosion. If any fill material is used, it should be from a weed-free source.

Wildlife: Demolition would have minimal impacts to wildlife. These areas provide foraging habitat for small mammals, such as mice and rabbits. The area is improved and frequently maintained by the grounds maintenance contractor. Due to the abundance and mobility of these species and the profusion of similar landscaped areas in the general vicinity, any wildlife disturbed would be able to find similar habitat in the local area.

Threatened or Endangered Species: According to the Biological Surveys of 1994 and 2004, and bird surveys of 2001, 2004, and 2005, Grand Forks AFB has 56 bird species of concern: 1 federally threatened, 8 state threatened and endangered, 29 state species of concern, 17 USFWS birds of conservation concern, and 22 DOD partners-in-flight species. In addition, referencing the 1994 and 2004 biological surveys, there are 2 state-listed plant species, 1 state-listed

mammal species, and 1 state-listed amphibian identified at GFAFB. The federally listed bird species (the Bald Eagle) has no critical habitat at GFAFB. Proposed activities should have no impact on these sensitive species, given all proposed actions are associated with building 452 that is located in a heavily asphalted area.

#### 4.6.3 Alternative 3

Impacts would be similar to those generated under the proposed action.

### 4.7 SOCIOECONOMIC RESOURCES

#### 4.7.1 Alternative 1 (No Action)

The no action alternative would not impact socioeconomics.

#### 4.7.2 Alternative 2 (Proposed Action)

Secondary retail purchases would make an additional contribution to the local communities. The implementation of the proposed action, therefore, would provide a short-term, minimal beneficial impact to local retailers during the demolition phase of the project.

#### 4.7.3 Alternative 3

Impacts would be similar to those generated under the proposed action.

### 4.8 CULTURAL RESOURCES

#### 4.8.1 Alternative 1 (No Action)

The no action alternative would not impact cultural resources.

#### 4.8.2 Alternative 2 (Proposed Action)

The proposed action has little potential to impact cultural resources. In the unlikely event any such artifacts were discovered during the construction activities, the contractor would be instructed to halt construction and immediately notify Grand Forks AFB civil engineers who would notify the State Historic Preservation Officer. A notice of demolition to the SHPO must be completed before the building is demolished to solicit any comments.

#### 4.8.3 Alternative 3

Alternative impacts would be similar to those generated under the proposed action.

### 4.9 LAND USE

#### 4.9.1 Alternative 1 (No Action)

The no action alternative would not have an impact on land use.

#### 4.9.2 Alternative 2 (Proposed Action)

The proposed operation would not have an impact on this land use currently designated for industrial use.

#### 4.9.3 Alternative 3

Impacts would be similar to those generated under the proposed action.

### 4.10 TRANSPORTATION SYSTEMS

#### 4.10.1 Alternative 1 (No Action)

The action would not impact transportation.

#### 4.10.2 Alternative 2 (Proposed Action)

The proposed action would have minimal adverse impact to transportation systems on base due to vehicles traveling to and from building 452 during demolition.

#### 4.10.3 Alternative 3

Impacts would be similar to those generated under the proposed action.

### 4.11 AIRSPACE/AIRFIELD OPERATIONS

#### 4.11.1 Alternative 1 (No Action)

The no action alternative would not impact aircraft safety or airspace compatibility.

#### 4.11.2 Alternative 2 (Proposed Action)

The proposed action would not impact aircraft safety or airspace compatibility.

#### 4.11.3 Alternative 3

Impacts would be similar to those generated under the proposed action.

## 4.12 SAFETY AND OCCUPATIONAL HEALTH

### 4.12.1 Alternative 1 (No Action)

The no action alternative would not impact safety and occupational health.

### 4.12.2 Alternative 2 (Proposed Action)

The proposed action would have no impact on safety and occupational health. Participants are required to wear appropriate personnel protective equipment (PPE).

### 4.12.3 Alternative 3

Impacts would be similar to those generated under the proposed action.

## 4.13 ENVIRONMENTAL MANAGEMENT

### 4.13.1 Alternative 1 (No Action)

The no action alternative would not impact ERP Sites or geological resources.

### 4.13.2 Alternative 2 (Proposed Action)

IRP: The proposed action would not impact ERP Sites.

Geology: The proposed action would not impact geological resources. Soils present in the proposed area include the Gilby series.

Pesticides: No pesticides would be used during the demolition of building 452.

### 4.13.3 Alternative 3

Impacts would be similar to those generated under the proposed action.

## 4.14 ENVIRONMENTAL JUSTICE

### 4.14.1 Alternative 1 (No Action)

The no action alternative would not impact environmental justice.

### 4.14.2 Alternative 2 (Proposed Action)

EO 12898 requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and

activities on minority and low-income populations. There are no minority or low-income populations in the area of the proposed action or alternatives, and, thus, there would be no disproportionately high or adverse impact on such populations.

#### 4.14.3 Alternative 3

Impacts would be similar to those generated under the proposed action.

### 4.15 INDIRECT AND CUMULATIVE IMPACTS

The short-term increases in air emissions and noise during demolition and the impacts predicted for other resource areas, would not be significant when considered cumulatively with other ongoing and planned activities at Grand Forks AFB and nearby off-base areas. The cumulative impact of the Proposed Action or Alternative with other ongoing activities in the area would produce an increase in solid waste generation; however, the increase would be limited to the timeframe of each project. The area landfills used for construction and demolition debris do not have capacity concerns, and could readily handle the solid waste generated by the various projects.

### 4.16 UNAVOIDABLE ADVERSE IMPACTS

The proposed action and alternatives would involve the use of demolition related vehicles, and their short-term impacts on noise, air quality, and traffic are unavoidable.

### 4.17 RELATIONSHIP BETWEEN SHORT-TERM USES AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The proposed action and alternatives would involve the use of previously developed areas. No croplands, pastureland, wooded areas, or wetlands would be modified or affected as a result of implementing the Proposed Action and, consequently, productivity of the area would not be degraded.

### 4.18 IRREVERSIVLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Under the proposed action, fuels, manpower, economic resources, and other recovery materials related to the demolition of building 452 would be irreversibly lost.

## 5.0 LIST OF PREPARERS

Steve Braun  
USTs and Special Programs  
319 CES/CEVC  
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Grand Forks AFB ND 58205

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Jeffrey L McClellan, 2nd LT, USAF, BSC  
Bioenvironmental Engineer  
Bioenvironmental Engineering Flight  
319AMDS/SGGB  
1599 J St  
Grand Forks AFB ND 58205

**6.0 LIST OF AGENCIES AND PERSONS CONSULTED AND/OR PROVIDED COPIES**

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State Health Officer  
North Dakota Department of Health  
600 East Boulevard Ave  
Bismarck, ND 58505-0200

Mr. Dean Hildebrand  
Commissioner  
North Dakota Game and Fish  
100 North Bismarck Expressway  
Bismarck, ND 58501

Mr. Jeffrey Towner  
U.S. Fish & Wildlife Service  
3425 Miriam Avenue  
Bismarck ND 58501

Mr. Merlan E. Paaverud  
State Historic Preservation Officer  
State Historical Society of North Dakota  
612 East Boulevard Ave  
Bismarck ND 58505-0200

Mr. Larry Knudtson, Planning  
North Dakota State Water Commission  
900 E Boulevard Ave, Dept 770  
Bismarck ND 58505-0850

## 7.0 REFERENCES

- Clayton, Scott, 2001. Personal communication. Grand Forks County Engineer.
- Doolittle, J. A., C. A. Heidt, S. J. Larson, T. P. Ryterske, M. G. Ulmer, and P. E. Wellman, Undated. Soil Survey of Grand Forks County, ND, U.S. Department of Agriculture, Soil Conservation Service.
- Dunn, Curtis, 2001. Personal communication. ND Department of Transportation, Grand Forks District Office.
- Grand Forks AFB, 2001. Economic Impact Analysis Fiscal Year 2001. Home Page.
- Hansen, Dan E. and Jack Kume, 1970. Genealogy and Ground Water Resources of Grand Forks County, Part I, Geology; ND Geological Survey Bulletin No. 53.
- Job Service of ND, 2001. ND State Wage Survey. Home Page.
- Kingsley, Dirk, 2001. Personal communication. ND Department of Transportation. April.
- Kuntz, Sean, 2001. Personal communication. ND Department of Transportation. April.
- ND DH, 2001. Division of Air Quality, Asbestos Control Program. [www.health.state.nd.us](http://www.health.state.nd.us)
- ND DH, 1998. Annual Report, ND Air Quality Monitoring Data Summary. July.
- ND Natural Heritage Inventory and ND Parks and Recreation Department. Grand Forks AFB, ND, Biological Survey. 1994.
- ND State Data Center, No Date. Census ND 2000. Home Page.
- Stoner, J. D., D. L. Lorenz, G. J. Wiche, and R. M. Goldstein, 1993. Red River of the North Basin, Minnesota, ND, and South Dakota; Water Resources Bulletin 29:4; pages 575-615.
- Thurman, Albert and Richard Miller, 1976. Secrets of Noise Control. 2<sup>nd</sup> ed. Atlanta: Fairmont Press.
- US AFI 32-7061, as promulgated in 32 C.F.R. 989, EIAP
- USAF, 2001a. Base General Plan.
- USAF, 2001b. Bird Airstrike Hazard Plan. February.
- USAF, 2001c. Grand Forks AFB Installation Hazardous Waste Management Plan.

USAF, 1999. Final EIS for Minuteman III Missile System Dismantlement at Grand Forks AFB, ND. April

USAF, 1997a. Grand Forks AFB Integrated Natural Resources Management Plan.

USAF, 1997b. Management Action Plan for Grand Forks AFB.

USAF, 1996. Grand Forks AFB Final Emissions Survey Report. January.

USAF, 1995. AICUZ Study at Grand Forks AFB, ND.

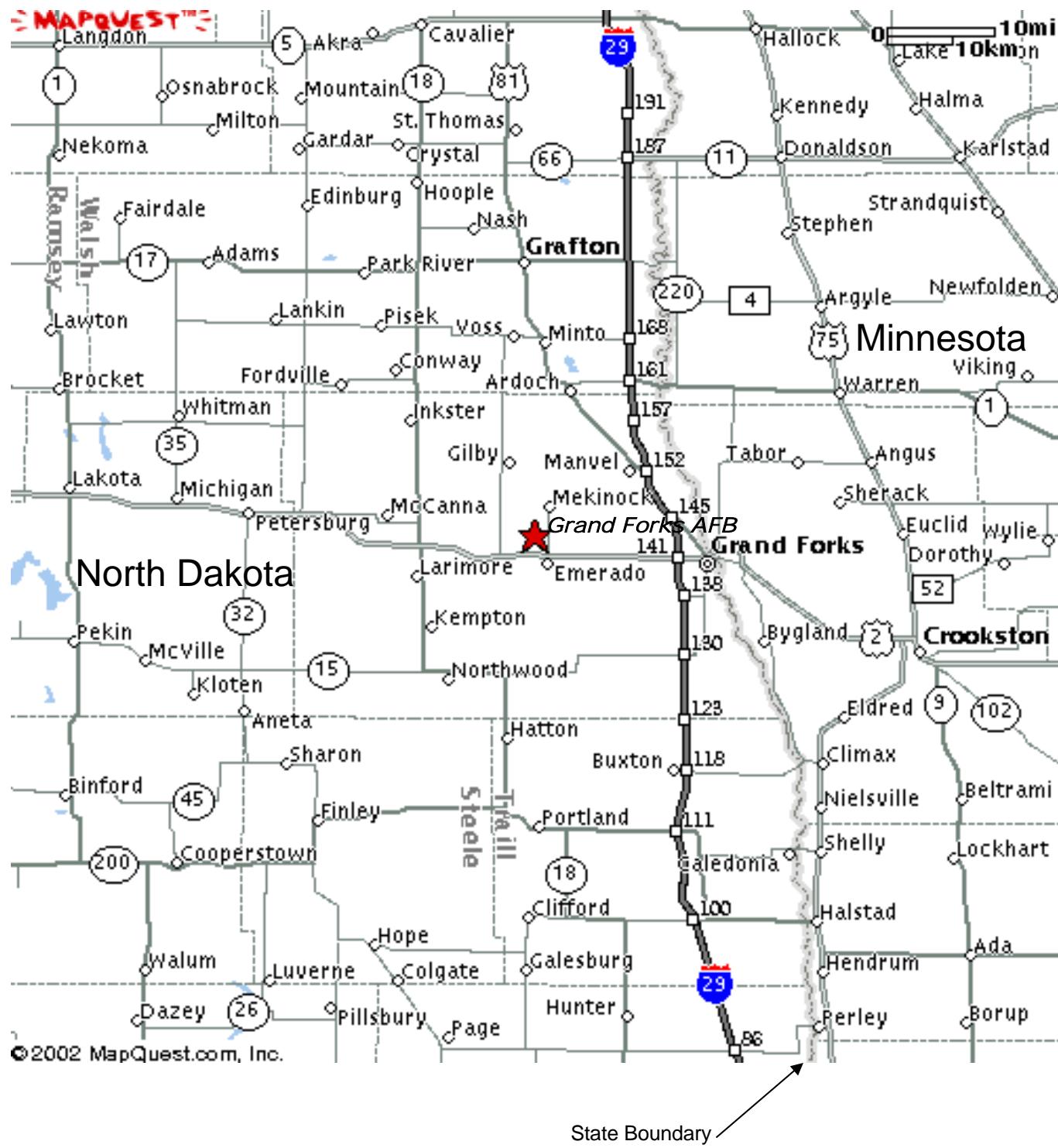
US Army, 1978. Construction Engineering Research Laboratory (CERL). Construction site Noise Control, Cost-Benefit Estimation Technical Background. January.

US Bureau of the Census, 2002. 2000 Census of Population and Housing (population and demographic data).

US Environmental Protection Agency, 1995. National Water Quality Inventory, 1994 Report to Congress. EPA 841-R-95-005. Washington D.C. December.

APPENDIX A  
LOCATION MAP – GRAND FORKS AFB

# Grand Forks AFB, ND



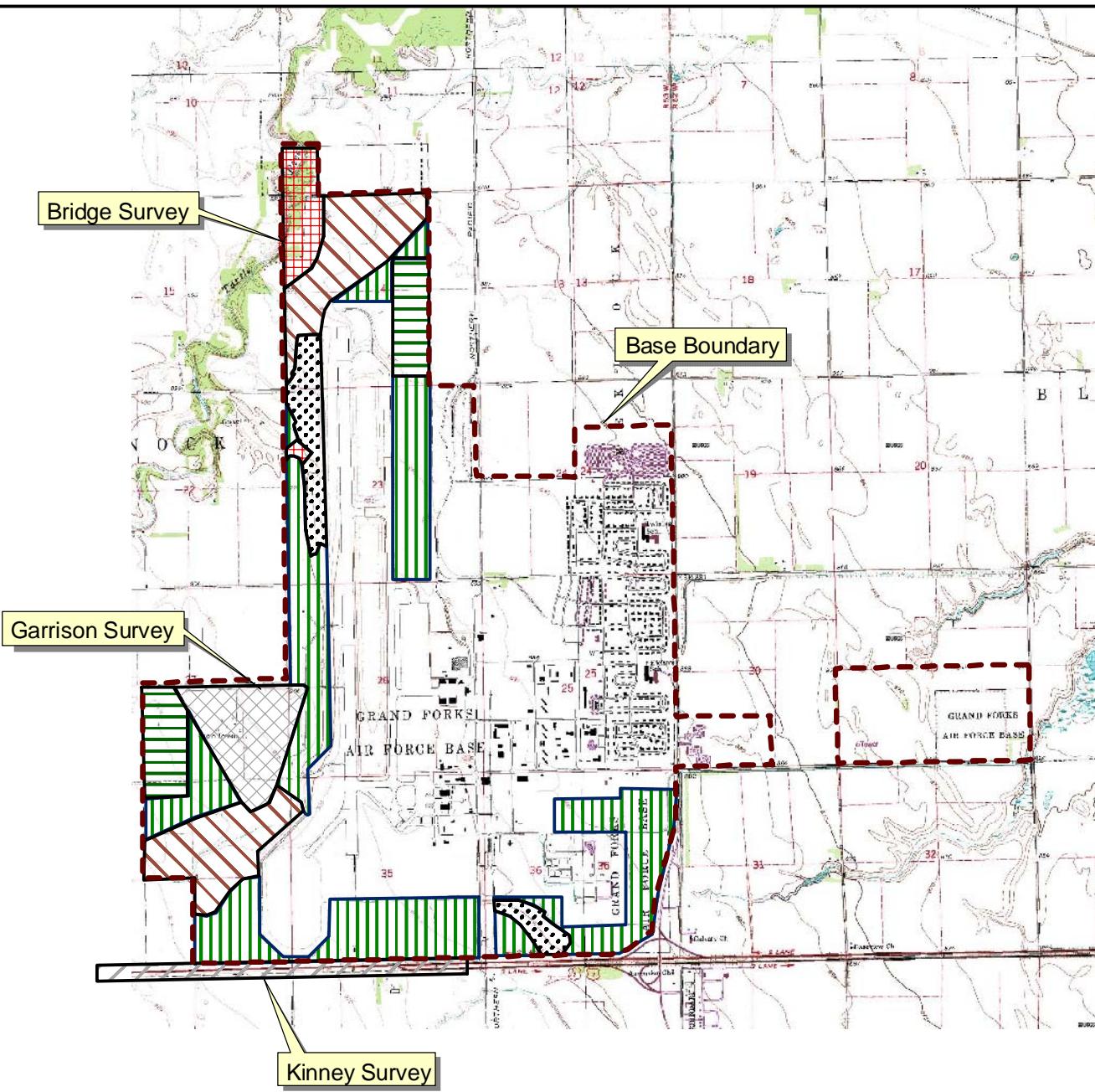
APPENDIX B  
CULTURAL RESOURCE PROBABILITY MAP

Figure 3.5  
Survey Areas and  
Probabilities

Grand Forks Air Force Base  
Cultural Resources Management Plan

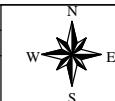
Legend

- Y Historic Bridge Inventory Survey
- Base Boundary
- High Probability
- Medium Probability (near water)
- Kinney Survey
- Medium Probability (beach ridge)
- Peace Keeper Rail Garrison Survey
- Low Probability (distance from water)
- Low Probability (10% sample)
- Previously Disturbed

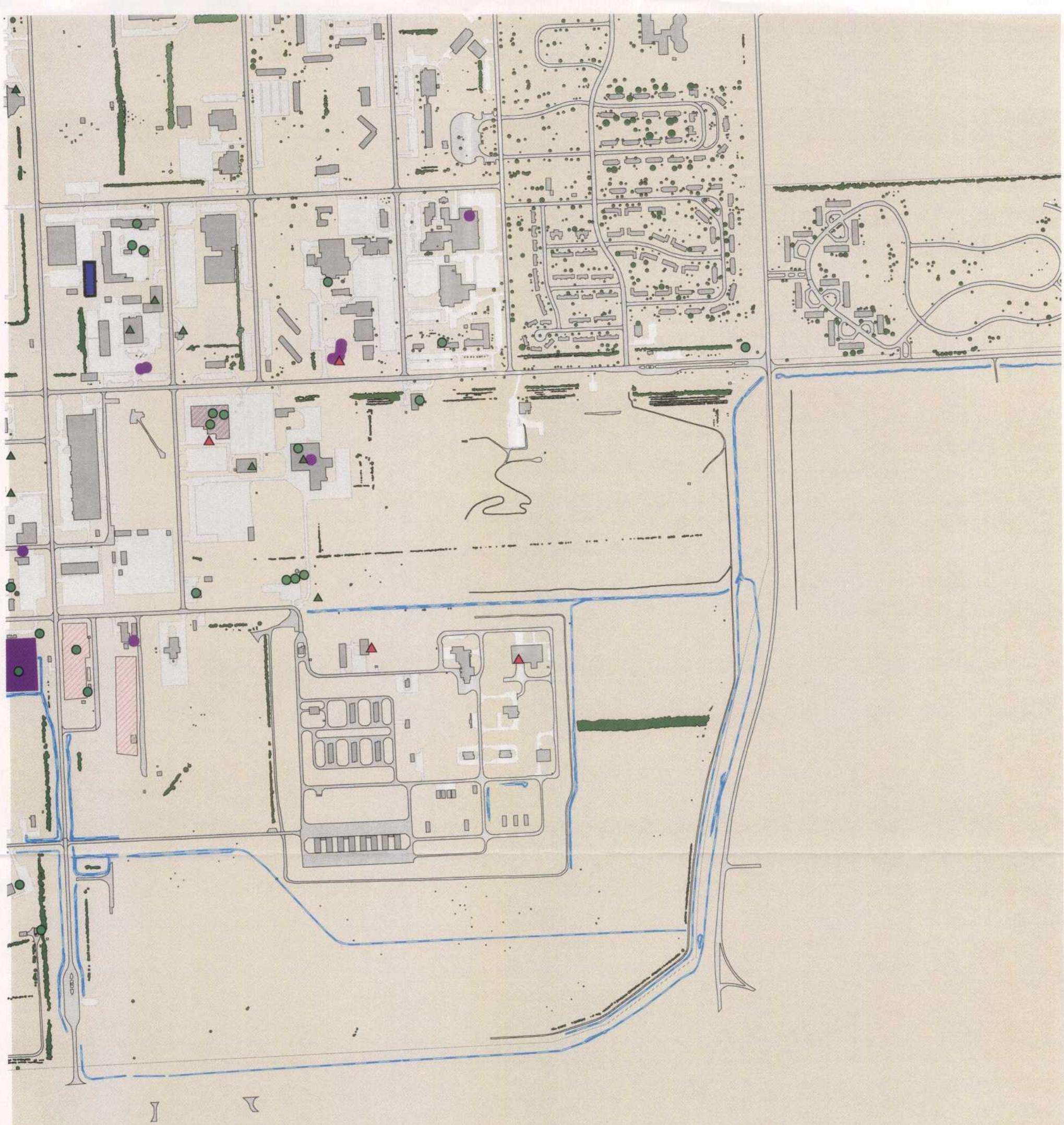


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Date: 5-16-02  
Figure Number: 3.5  
Page Number: 3-18



APPENDIX C  
ENVIRONMENTAL SITE MAP



### Grand Forks AFB Environmental Sites (SE)

- Above Ground Storage Tanks (Fuel)
- ▲ Abandoned Fuel Lines
- ▲ Building 622 - Acid Dip Room
- Helicopter Wash Area
- ▲ Oil/Water Separator
- ▲ Satellite Accumulation Areas (Haz Waste)
- ▲ Scrap Storage Area
- S.H.P.O. (Buildings under consideration)
- ▲ Underground Waste Storage
- Underground Storage Tanks (Fuel)
- Ditches/Streams
- ▨ IRP Sites
- ▨ Landfill Caps
- Trees

Hydrography-flood zone area  
floodplain zone centroid



APPENDIX D  
AF FORM 813

## REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS

Report Control Symbol  
RCS: 2006-038

INSTRUCTIONS: Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).

## SECTION I - PROONENT INFORMATION

|   |  |                                   |
|---|--|-----------------------------------|
| 1. TO (Environmental Planning Function)<br>319 CES/CEVA | 2. FROM (Proponent organization and functional address symbol)<br>319 CES/CD | 2a. TELEPHONE NO.<br>701-747-4761 |
|---|--|-----------------------------------|

## 3. TITLE OF PROPOSED ACTION

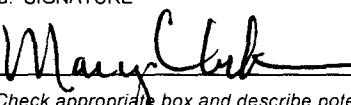
Demolition of Building 452

## 4. PURPOSE AND NEED FOR ACTION (Identify decision to be made and need date)

The SABER office has been relocated to building 412, so there is no longer any need for facility 452 at Grand Forks AFB. Facility 452 identified for demolition has been classified substandard and excess to base needs.

## 5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA) (Provide sufficient details for evaluation of the total action.)

Demo building 452, in-house, to include demolition of the buildings, excavation, removal of concrete slabs and foundations, disposal of all debris off site, backfill, grading, seeding and final site restoration.

|   |   |                       |
|---|---|-----------------------|
| 6. PROONENT APPROVAL (Name and Grade)<br>MARY C. GILTNER, GM-13<br>Deputy Base Civil Engineer | 6a. SIGNATURE<br> | 6b. DATE<br>15 Nov 05 |
|---|---|-----------------------|

## SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY. (Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U = unknown effect)

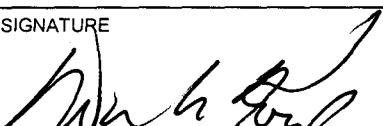
|   |                          |                                     |                                     |                          |
|---|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| 7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE (Noise, accident potential, encroachment, etc.)  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 8. AIR QUALITY (Emissions, attainment status, state implementation plan, etc.)  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 9. WATER RESOURCES (Quality, quantity, source, etc.)  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 10. SAFETY AND OCCUPATIONAL HEALTH (Asbestos/radiation/chemical exposure, explosives safety quantity-distance, bird/wildlife aircraft hazard, etc.) | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 11. HAZARDOUS MATERIALS/WASTE (Use/storage/generation, solid waste, etc.)   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 12. BIOLOGICAL RESOURCES (Wetlands/floodplains, threatened or endangered species, etc.)   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 13. CULTURAL RESOURCES (Native American burial sites, archaeological, historical, etc.)   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 14. GEOLOGY AND SOILS (Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 15. SOCIOECONOMIC (Employment/population projections, school and local fiscal impacts, etc.)  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 16. OTHER (Potential impacts not addressed above.)  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |

## SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION

|  |
|--|
| 17. <input type="checkbox"/> PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # _____ ; OR<br><input checked="" type="checkbox"/> PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED. |
|--|

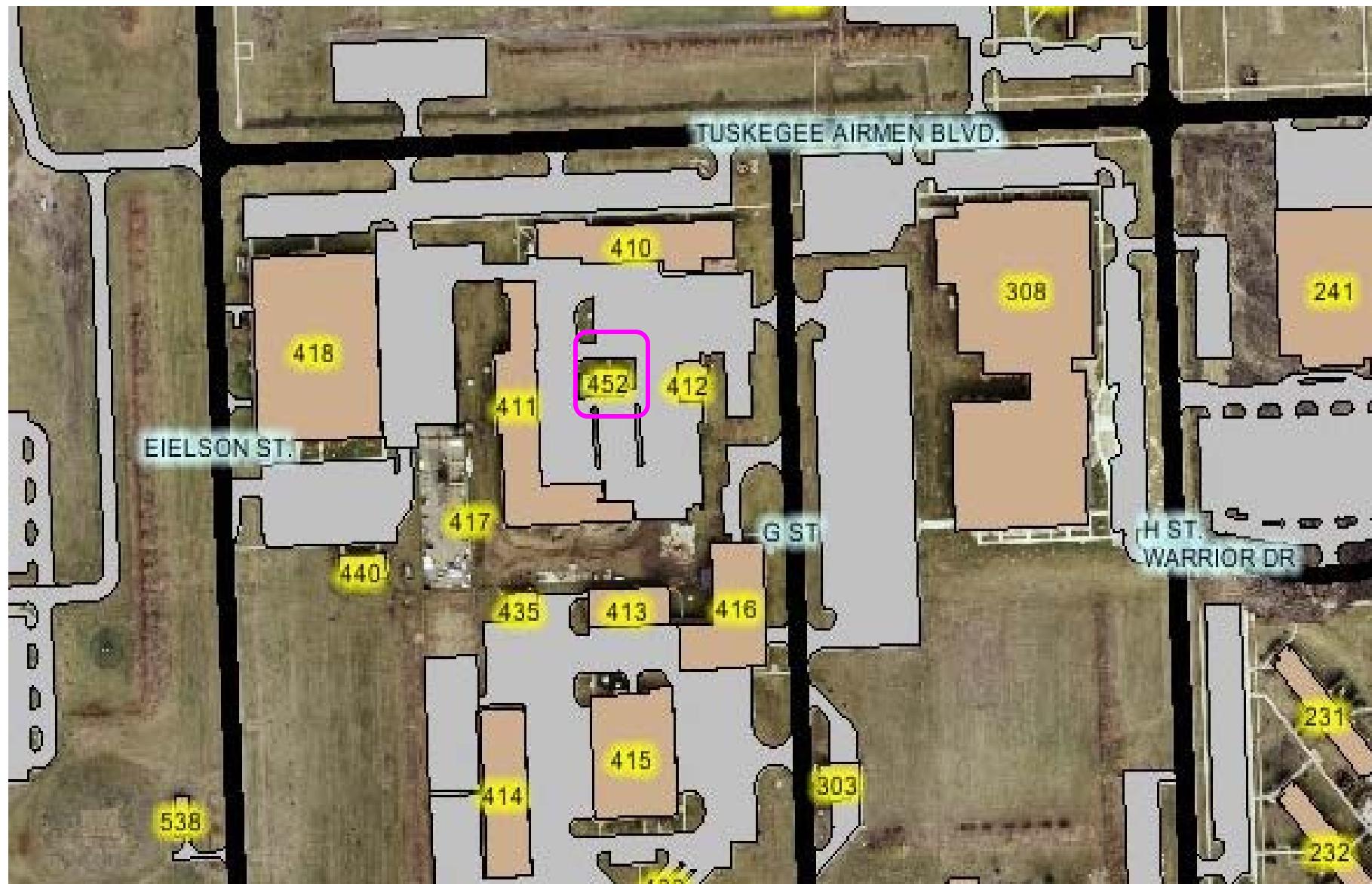
## 18. REMARKS

This action is not "regionally significant" and does not require a conformity determination in accordance with 40 CFR 93.153(1). The total emission of criteria pollutants from the proposed action are below the de minimus thresholds and less than 10 percent of the Air Quality Region's planning inventory.

|   |  |                        |
|---|--|------------------------|
| 19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION (Name and Grade)<br>WAYNE A. KOOP, R.E.M., GS-13<br>Environmental Management Flight Chief | 19a. SIGNATURE<br> | 19b. DATE<br>10 Nov 05 |
|---|--|------------------------|

- 4.0 Purpose and Need for Action, 2006-038, Demo 452.
- 4.1 Purpose of the Action (mission objectives-who proposes to do what, where, when): Demolish building 452 in-house by CES. The work includes demolition of the buildings, excavation, removal of concrete slabs and foundations, disposal of all debris off site, backfill, grading and final site restoration.
- 4.2 Need for the Action (why this action is desired or required-why here, why now): The SABER office has been relocated to building 412, so there is no longer any need for this facility at Grand Forks AFB. The building was constructed in 1977 as an office building. It is a 30' x 60' metal building with concrete floor. The facility identified for demolition has been classified substandard, repair to this facility would exceed 70% of the replacement value. This project supports facility consolidation and reduction initiatives. The building has underfloor heat ducting, and the ducting has often been flooded, creating problems of mold, fungus, high humidity, and breathing problems. It presents safety and health concerns to the employees working in the building. It has substandard windows, roof and exterior siding which do not meet the Air Force architectural standards.
- 4.3 Objectives for the Action (what goal do you wish to accomplish): Remove excess facility.
- 4.4 Related EISs/EAs and other documents (similar projects in the past): EAs for 03-082 Demo of Heat Plant; 02-060 Demo of Penn Circle Housing; 02-037 Demo of LMR; 02-036 Demo of Bldg 800.
- 4.5 Decision that must be made: Demolish facility 452 in-house by CES.
- 4.6 Applicable Regulatory Requirements and Required Coordination-- required permits, licenses, entitlements: Project manager must submit a Work Clearance Request, Stormwater Protection Plan, Dust Control Plan, Spill Control Plan, Erosion and Sediment Control Plan to the CEV Water Program Manager and Contracting Officer.
- 5.0 Description of Proposed Action and Alternatives
- 5.1 Description of the proposed action (in brief, introduction): The Grand Forks AFB Facility Board approved relocation of the SABER office on 23 Mar 05, and demolition of 452 is planned as a CES in-house project.
- 5.2 Selection criteria for Alternatives
- 5.2.1 Minimum mission requirements: effectiveness, timeliness, cost effective, legality, safety, efficiency, force protection.
- 5.2.2 Minimum environmental standards : noise, air, water, safety, HW, vegetation, cultural, geology, soils, socioeconomic.
- 5.3 Alternatives Considered but Eliminated from Detailed Study: Remodel building 452 for use by another activity on base.
- 5.4 Description of proposed alternatives
- 5.4.1 No-action alternative: The no action alternative would be to leave the facility as it is. The facility is old and deteriorated and will remain vacant. The base will be forced to expend maintenance funds to maintain this facility to ensure this facility minimally impacts the quality of life. The facility detracts from the community atmosphere and degrade the appearance of this base.
- 5.4.2 Proposed Action: Demolish 1800 Square Feet (building 452) of excess facility on base by CES in-house in FY 06. Work includes asbestos and lead based paint removal abatement/removal, building demolition, excavation, slab removal, backfill, grading, removal of debris, and site restoration.
- 5.4.3 Another Reasonable Action Alternative: Demolish facility 452 by contract as part of the BCE project JFSD990073 programmed for FY 2013.
- 5.5 Description of Past and Reasonably Foreseeable Future Actions Relevant to Cumulative Impacts: There are several other construction and demolition projects occurring on Grand Forks AFB in the same time frame. These projects are addressed under separate NEPA documents.
- 5.6 Recommendation of preferred alternative: Demolish facility 452 in-house.

APPENDIX E  
LOCATION MAP OF BUILDING 452



Demolish 452, old SABER building.

APPENDIX F  
PHOTOGRAPHS



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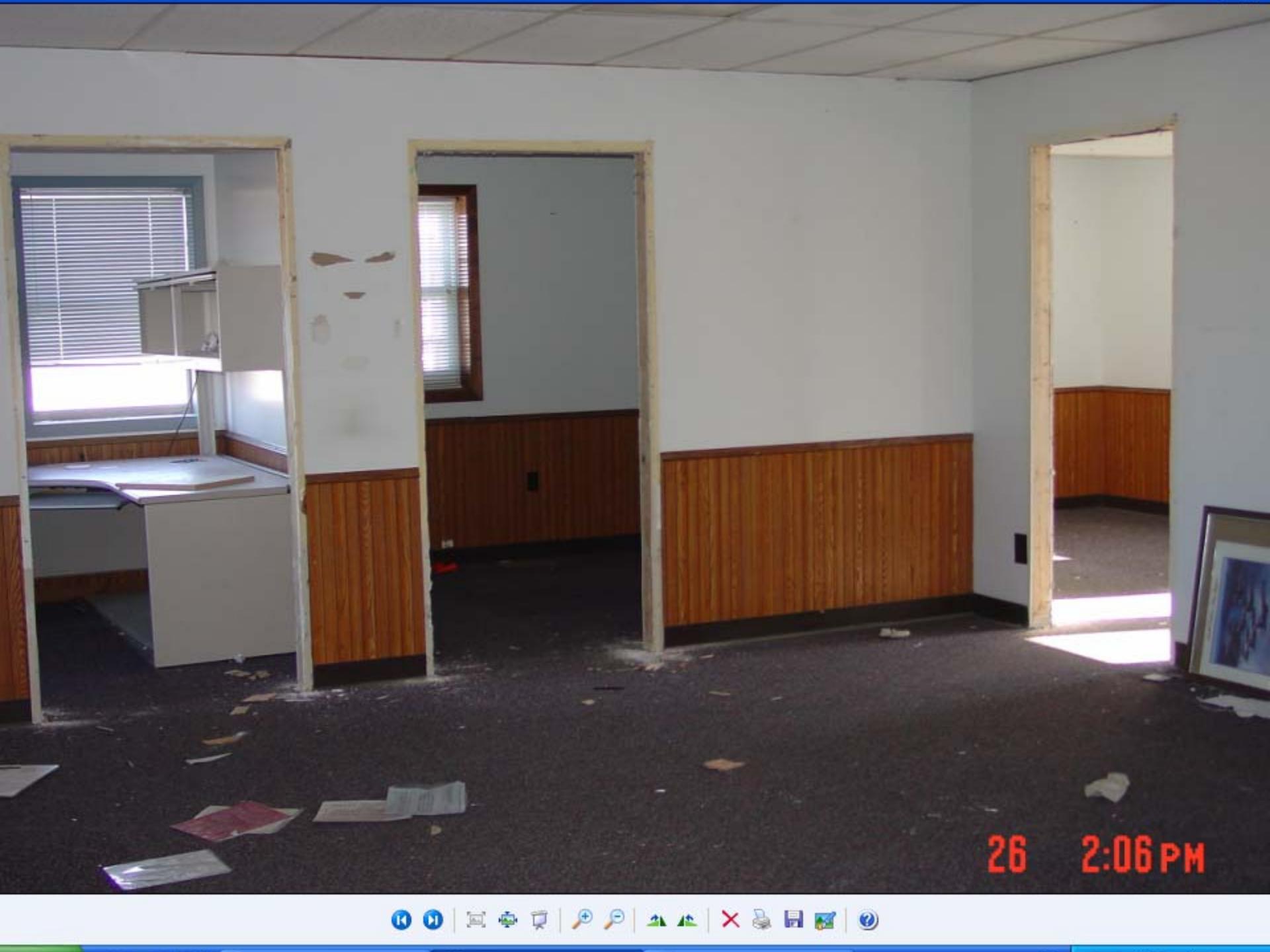


• BLDG 452 •

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# DEPARTMENT OF THE AIR FORCE

HEADQUARTERS 319TH AIR REFUELING WING (AMC)  
GRAND FORKS AIR FORCE BASE, NORTH DAKOTA

21 December 2005

MEMORANDUM FOR 319 CES/CEVA

FROM: 319 ARW/JA

SUBJECT: Legal Review – Demolition of Building 452 at Grand Forks AFB (EA/FONSI)

1. Based upon my review the proposed Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) complies with 32 CFR part 989 and is legally sufficient.
2. 32 CFR §. 989.14 states an EA must discuss the need for the proposed action, reasonable alternatives to the proposed action, the affected environment, the environmental impacts of the proposed action and alternatives (including the "no action" alternative), and a listing of agencies and persons consulted during preparation. The EA meets these requirements and follows the alternatives analysis guidance outlined in Sec. 989.8.
3. 32 CFR §. 989.14(g) states when the action selected is located in wetlands or floodplains, it must discuss why no other practicable alternative exists to avoid impacts. See AFI 32-7064, *Integrated Natural Resources Management*. The proposed alternative has no impact on wetlands. In addition, the demolition of the building will be improving environmental conditions on the installation by removing old construction and properly disposing of the waste material.
4. If you have any questions about these comments, please contact the undersigned at 7-3606.

MARK W. HANSON, GS-12, DAF  
Chief, General Law



November 29, 2005

Ms. Diane Strom  
Environmental Impact Analysis Program  
319 CES/CEVA  
525 Tuskegee Airmen Blvd.  
Grand Forks AFB, ND 58205-6434

Re: Draft Environmental Assessment, Demolition of Building 452  
Grand Forks Air Force Base, Grand Forks County

Dear Ms. Strom:

This department has reviewed the information concerning the above-referenced project submitted under date of November 14, 2005, with respect to possible environmental impacts.

1. All necessary measures must be taken to minimize fugitive dust emissions created during demolition activities. Any complaints that may arise are to be dealt with in an efficient and effective manner.
2. Projects disturbing one or more acres are required to have a permit to discharge storm water runoff until the site is stabilized by the reestablishment of vegetation or other permanent cover. Further information on the storm water permit may be obtained from the Department's website or by calling the Division of Water Quality (701-328-5210). Also, cities may impose additional requirements and/or specific best management practices for demolition affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.
3. All necessary measures must be taken to minimize the disturbance of any asbestos-containing material and to prevent any asbestos fiber release episodes. Removal of any friable asbestos-containing material must be accomplished in accordance with section 33-15-13-02 of the North Dakota air pollution control rules.
4. Many buildings constructed prior to 1978 have interior and exterior surfaces coated with lead-based paint. The Office of Housing and Urban Development (HUD), as well as other Federal Housing Authorities, have implemented requirements for reducing exposure to lead from lead-based paint. If the building is under the control of a Federal Agency, these materials must be handled according to their requirements which may include the use of properly trained individuals for removal and disposal. If the building

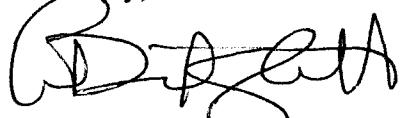
is not under the control of a Federal Agency, the lead-based paint should be properly handled to reduce or prevent exposing workers and building occupants to lead.

5. All solid waste materials must be managed and transported in accordance with the state's solid and hazardous waste rules. Appropriate efforts to reduce, reuse and/or recycle waste materials are strongly encouraged. As appropriate, segregation of inert waste from non-inert waste can generally reduce the cost of waste management. Further information on waste management and recycling is available from the Department's Division of Waste Management at (701) 328-5166.

The department owns no land in or adjacent to the proposed improvements, nor does it have any projects scheduled in the area. In addition, we believe the proposed activities are consistent with the State Implementation Plan for the Control of Air Pollution for the State of North Dakota.

If you have any questions regarding our comments, please feel free to contact this office.

Sincerely,



L. David Glatt, P.E., Chief  
Environmental Health Section

LDG:cc



"Strom Diane Civ 319  
CES/CEVA"  
<Diane.Strom@grandforks.af.  
mil>

11/14/2005 08:37 AM

To <carole.mcmahon@gfcounty.com>,  
<jeffrey\_towner@fws.gov>, <ppicha@state.nd.us>,  
<fswenson@state.nd.us>, <ccain@state.nd.us>,  
cc  
bcc

Subject Review of Environmental Assessment, Demo of 452, Pt 2

Appendix A-E enclosed.

Sincerely,  
Diane M. Strom  
Environmental Impact Analysis Program  
319 CES/CEVA, Room 128  
525 Tuskegee Airmen Blvd  
Grand Forks AFB ND 58205-6434  
Phone (701) 747-6394; DSN 362-6394  
FAX (701) 747-6155; DSN 362-6155  
Diane.Strom@grandforks.af.mil

**U.S. FISH AND WILDLIFE SERVICE  
ECOLOGICAL SERVICES  
ND FIELD OFFICE**

**Project as described will have no significant  
impact on fish and wildlife resources. No  
endangered or threatened species are known  
to occupy the project area. IF PROJECT  
DESIGN CHANGES ARE MADE, PLEASE  
SUBMIT PLANS FOR REVIEW.**

11/29/05

Date

Jeffrey K. Towner

Jeffrey K. Towner  
Field Supervisor

**From:** Strom Diane Civ 319 CES/CEVA

**Sent:** Monday, November 14, 2005 8:35 AM

**To:** (carole.mcmahon@gfcounty.com); (jeffrey\_towner@fws.gov); (ppicha@state.nd.us);  
'(fswenson@state.nd.us)'; ccain@state.nd.us; dglatt@state.nd.us; dhildebr@state.nd.us;  
Marie\_Nelson@fws.gov; mpaaverud@state.nd.us; ND St Water Comm Larry Knudtson  
(lknudtson@state.nd.us); sdyke@state.nd.us; tdwelle@state.nd.us

**Subject:** Review of Environmental Assessment, Demo of 452

The U.S. Air Force is preparing an environmental assessment (EA) demolition of building 452. Attached is an electronic copy of the draft EA. Please review the document and identify any additional resources within your agency's responsibility that may be impacted by the action. We respectfully request that your comments be sent, electronically if necessary, to reach our office by December 14, 2005.

Due to the size of files, the Appendixes are being forwarded separately. Your assistance in providing information is greatly appreciated. If you have any questions, please call or email me at the following number/address.

Sincerely,

Diane M. Strom  
Environmental Impact Analysis Program  
319 CES/CEVA, Room 128  
525 Tuskegee Airmen Blvd  
Grand Forks AFB ND 58205-6434  
Phone (701) 747-6394; DSN 362-6394  
FAX (701) 747-6155; DSN 362-6155  
Diane.Strom@grandforks.af.mil

Appendix E, map 452.ppt Appendix A, Map, Location GFAFB.ppt Appendix B, Map, Cultural Resource Probability.ppt

Appendix C, Map, Environmental Sites.pdf Appendix D, AF 813 CES.xfd

TO: 108931 100000Z MAR 2009  
327 119 301 AM BHA 20090303000000  
SUBJ: ECR 100000Z MAR 2009

TO: 108931 100000Z MAR 2009  
327 119 301 AM BHA 20090303000000  
SUBJ: ECR 100000Z MAR 2009



STATE  
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SOCIETY  
OF NORTH DAKOTA

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Governor of North Dakota

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Department

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Department of  
Transportation

Merlan E. Paaverud, Jr.  
Director

November 8, 2005

*MCG  
to N.W.  
CEV*

Ms. Mary C. Giltner  
Deputy Base Civil Engineer  
Department of the Air Force  
319 CES/CD  
525 Tuskegee Airmen Blvd  
Grand Forks AFB ND 58205-6434

ND SHPO Ref.: 97-0527, Building 452 Demolition, Grand Forks Air Force  
Base, North Dakota.

Dear Ms. Giltner:

We have reviewed Project: 97-0527, proposed demolition of Building 452, the  
former SABER building at the Grand Forks Air Force Base in Grand Forks  
County, ND.

Building 452 is not among the buildings that are National Register eligible. As a  
result, we concur with "No Historic Properties Affected" determination.

Thank you for the opportunity to review this project. Please include the ND  
SHPO Reference number listed above in any further correspondence for this  
specific project. If you have any questions please contact Susan Quinnell at  
(701) 328-3576.

Sincerely,

*Merlan E. Paaverud, Jr.*

Merlan E. Paaverud, Jr.  
State Historic Preservation Officer  
(North Dakota)

Accredited by the  
American Association  
of Museums

**Strom, Diane Civ 319 CES/CEVA**

---

**From:** Schumacher, John D. [jschumac@state.nd.us]  
**Sent:** Monday, December 05, 2005 3:47 PM  
**To:** Strom, Diane Civ 319 CES/CEVA  
**Subject:** FW: Review of Environmental Assessment, Demo of 452

The North Dakota Game and Fish Department has reviewed this project for wildlife concerns. We do not believe it will have any significant adverse affects on wildlife or wildlife habitat, including endangered species, based on the information provided.

John Schumacher  
Resource Biologist

---

**From:** Strom Diane Civ 319 CES/CEVA [mailto:Diane.Strom@grandforks.af.mil]  
**Sent:** Monday, November 14, 2005 8:35 AM  
**To:** McMahon, Carole B.; jeffrey\_towner@fws.gov; Picha, Paul R.; Swenson, Fern E.; Cain, Cindy C.; Glatt, Dave D.; Hildebrand, Dean C.; Marie\_Nelson@fws.gov; Paaverud, Merl E.; Knudtson, Larry J.; Dyke, Steve R.; Dwelle, Terry L.  
**Subject:** Review of Environmental Assessment, Demo of 452

The U.S. Air Force is preparing an environmental assessment (EA) demolition of building 452. Attached is an electronic copy of the draft EA. Please review the document and identify any additional resources within your agency's responsibility that may be impacted by the action. We respectfully request that your comments be sent, electronically if necessary, to reach our office by December 14, 2005.

Due to the size of files, the Appendixes are being forwarded separately. Your assistance in providing information is greatly appreciated. If you have any questions, please call or email me at the following number/address.

Sincerely,  
Diane M. Strom  
Environmental Impact Analysis Program  
319 CES/CEVA, Room 128  
525 Tuskegee Airmen Blvd  
Grand Forks AFB ND 58205-6434  
Phone (701) 747-6394; DSN 362-6394  
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January 25, 2006

Diane M. Strom  
Dept. of the Air Force  
319 CES/CEVA, Room 128  
525 Tuskegee Airmen Blvd.  
Grand Forks AFB, ND 58205-6434

"Letter of Clearance" In Conformance with the North Dakota Federal Program Review System - State Application Identifier No.: ND060125-0027

Dear Ms. Strom:

SUBJECT: FONSI - Demolition of Building 452 at Grand Forks AFB.

The above referenced FONSI has been reviewed through the North Dakota Federal Program Review Process. As a result of the review, clearance is given to the project only with respect to this consultation process.

If the proposed project changes in duration, scope, description, budget, location or area of impact, from the project description submitted for review, then it is necessary to submit a copy of the completed application to this office for further review.

We also request the opportunity for complete review of applications for renewal or continuation grants within one year after the date of this letter.

Please use the above SAI number for reference to the above project with this office. Your continued cooperation in the review process is much appreciated.

Sincerely,

James R. Boyd  
Manager of Governmental Services  
Division of Community Services

bb

3475

AFFIDAVIT OF PUBLICATION

STATE OF NORTH DAKOTA }  
COUNTY OF GRAND FORKS } SS.  
*13 Sept*

of said State and County being  
first duly sworn, on oath says:

That { she } is { a representative of the GRAND FORKS HERALD, INC.,

publisher of the Grand Forks Herald, Morning Edition, a daily newspaper of general circulation, printed and published in the City of Grand Forks, in said County and State, and has been during the time hereinafter mentioned, and that the advertisement of

Demolition bldg 952  
a printed copy of which is hereto annexed was printed and published in every copy of the following issues of said newspaper, for a period of time (s) to wit:

11-22 Yr. 05 Yr. \_\_\_\_\_

11-24 Yr. 05 Yr. \_\_\_\_\_

Yr. \_\_\_\_\_ Yr. \_\_\_\_\_

Yr. \_\_\_\_\_ Yr. \_\_\_\_\_

and that the full amount of the fee for the publication of the annexed notice inures solely to the benefit of the publishers of said newspaper; that no agreement or understanding for a division thereof has been made with any other person and that no part thereof has been agreed to be paid to any person whomsoever and the amount of said fee is

\$ 17.07;

That said newspaper was, at the time of the aforesaid publication, the duly elected and qualified Official Newspaper within said County, and qualified in accordance with the law of the State of North Dakota to do legal printing in said County and State.

Subscribed and sworn to before me this

*Nov* A.D. 05

25 day of

*Elaine Fawcett*

Notary Public, Grand Forks, ND

Publication Fee \$ 17.07

*My Notary Seal*



## News briefs

## Environmental Notice

Grand Forks Air Force Base has proposed demolition of Building 452.

An environmental assessment has been conducted and a finding of no significant impact has been determined for this action.

Anyone wishing to view the support documents to this action should contact the 319th Air Refueling Wing Public Affairs Office within the next 30 days at 747-5017 or 747-5608.

## Holiday Cookie Drive

The base holiday cookie drive for dorm Airmen and night shift workers is Dec. 12 from 6:30 a.m. until 2 p.m.

Volunteers will collect cookie donations at the curb, and donors are asked to pre-wrap four cookies. For more information, call Sue Bender at 594-3993.

## Job Opportunities

Catholic and Protestant Religious Activity Coordinators. These are part-time position, generally scheduled for 20 (Catholic) and four (Protestant) hours per week.

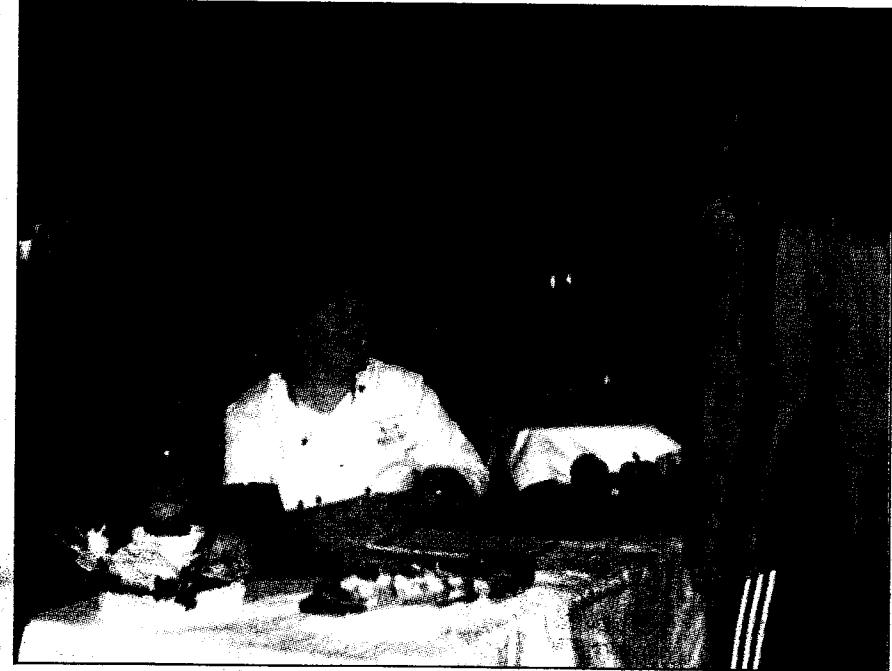
Strong interpersonal communication skills are required for both jobs. A baccalaureate degree in religious education or three years experience is also desired.

For more information call Troy McCullough at 747-5266 or email [troy.mccullough@grandforks.af.mil](mailto:troy.mccullough@grandforks.af.mil).

# Tips to stay flu free

The best way to avoid the flu is by receiving a vaccination during October-April. A few simple habits can help protect you from the flu:

Wash your hands. See 20.



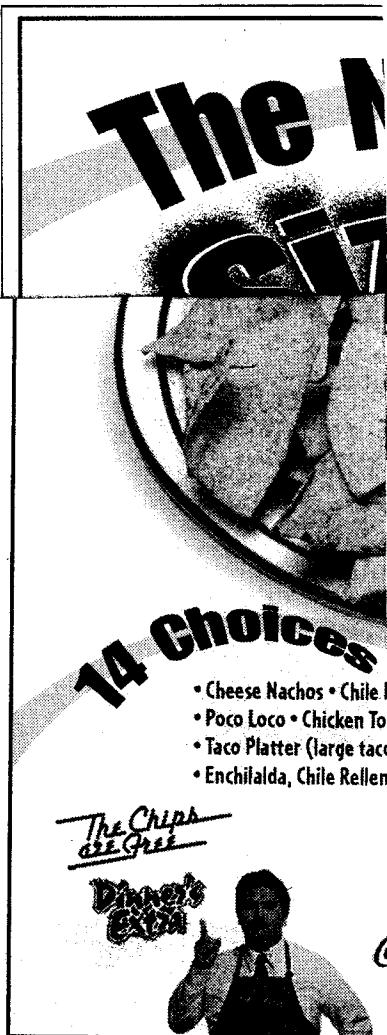
*Photo by Airman 1st Class Ashley Coomes*

## **Hangin' with the girls**

Ladies night out, held Nov. 9 in the community activities center, featured a free movie, displays from more than 30 vendors and door prizes like vases, free delivered food and craft products.



# Blue Stone Photograph



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## **Sell your unused items**